SESI
CONSULTING ENGINEERS

REMEDIAL ACTION WORKPLAN

For:

NYSDEC BCP No.: C360219

Hope Fire Engine Company Site
25 North Lexington Avenue
White Plains, New York 10601

Prepared for:

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Project Number: 11814
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CERTIFICATIONS

I, Fuad Dahan, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10)

Fuad Dahan	11/17/2022	
NYS Professional Engineer (# 090531)	Date	Signature

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education.

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LIST OF ACRONYMS

Acronym	Definition
AWQS	Ambient Water Quality Standards
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
bgs	Below ground surface
CAMP	Community Air Monitoring Plan
CCR	Construction Completion Report
CVOC	Chlorinated Volatile Organic Compound
DER	Division of Environmental Remediation
DER-10	NYSDEC Technical Guidance for Site Investigation & Remediation
DUSR	Data Usability Summary Report
ESA	Environmental Site Assessment
FER	Final Engineering Report
HASP	Health and Safety Plan
IRM	Interim Remedial Measures
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PFAS	Per and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PHC	Petroleum Hydrocarbon
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
RIR	Remedial Investigation Report
RI/IRMWP	Remedial Investigation/Interim Remedial Measures Work Plan
RSCO	Residential Soil Cleanup Objectives
RRSCO	Restricted Residential Soil Cleanup Objectives
SCG	Standards, Criteria, and Guidance
SCO	Soil Cleanup Objectives

Acronym	Definition
SESI	SESI Consulting Engineers, DPC
SMP	Site Management Plan
SOE	Support of Excavation
SSDS	Sub-slab Depressurization System
SVOCs	Semi-Volatile Organic Compounds
TAL	Target Analyte List
TCE	Trichloroethene
TCL	Target Compound List
TOGS	Technical and Operations Guidance Series
USCO	Unrestricted Use Soil Cleanup Objectives
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

EXCUTIVE SUMMARY

Site Description/Physical Setting/Site History

GS White Plains Owner, LLC (the "Volunteer") entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) to investigate and remediate the Hope Fire Engine Company Site (herein referred to as the "Site"). The Volunteer entered into Brownfield Cleanup Agreement Index No. C360219-11-21, with an effective date of December 7, 2021, for the Site, which is identified as Site Number C360219. The Site is located in an urban area and was approximately 1.532 acres in size. However, the Volunteer submitted a BCA Amendment application on August 30, 2022 removing a 0.0683-acre portion of the Site because it is an existing City Street/Sidewalk. Therefore, the Site is now 1.4632 acres.

Historic operations at the Site have included a lumber and storage yard, a freight house with railroad transport access, a fire department, a builder supply storage facility, a wholesale feed supply and grinding company, a parking lot and auto service stations.

This Remedial Action Work Plan (RAWP) includes an analysis of the remedial alternatives available to remediate any remaining contamination as determined from data gathered during the Remedial Investigation (RI), performed from December 2021 to July 2022, and after performance of the Interim Remedial Measures (IRM), then selects a preferred remedy for any contamination remaining after IRM implementation.

Summary of Remedial Investigation

The draft Remedial Investigation Report (RIR), prepared by SESI, dated July 2022 was submitted to NYSDEC for review and is currently pending NYSDEC and New York State Department of Health (NYSDOH) approval. The RI was conducted in accordance with the Remedial Investigation/Interim Remedial Measure Work Plan (RI/IRMWP) for the Site and the NYSDEC's Technical Guidance for Site Investigation and Remediation (DER-10), and was submitted to NYSDEC and NYSDOH for initial review on July 27, 2022. It was last revised on August 16, 2022.

The RI consisted of collecting 123 soil samples from 20 soil borings and 10 test pits, nine (9) groundwater samples from nine (9) monitoring wells (three (3) pre-IRM, and six (6) post-IRM), and eight (8) soil/sub-slab vapor samples from eight (8) vapor sampling points. Samples were collected for the investigation of Areas of Concern that were identified during the previous Phase I Environmental Site Assessment (ESA) and Phase II ESA by SESI, which included historic fill,

historic railroad operations, former firehouse, and underground storage tanks.

The RIR soil and groundwater samples were analyzed for a combination of full target compound list (TCL) and target analyte list (TAL) analytes – which include volatile organic compounds (VOCs [USEPA Method 8260]), metals (USEPA Methods 6010/7471), semi-volatile organic compounds (SVOCs [USEPA Method 8270]), polychlorinated biphenyls (PCBs) and pesticides (USEPA Methods 8081/8082), and per- and polyfluoroalkyl substances (PFAS [USEPA Modified Method 537]), and 1,4 dioxane (USEPA Method 8270). Duplicates, field blanks, equipment blanks and matrix spike/matrix duplicate samples were analyzed for TCL/TAL PFAS and 1.4 dioxane. Trip blanks accompanied all samples analyzed for VOCs. The soil vapor samples were analyzed for VOCs in accordance with EPA Method TO-15.

Based on results of RI, the overall depth of impacted soils exceeding the Unrestricted Use Soil Cleanup Objectives (USCOs) extended to a maximum depth of 23.5 ft-bgs. VOC impacts exceeding the USCO soils extend to a depth of 2.5 ft-bgs. SVOCs exceeding both the USCOs and Restricted Residential Soil Cleanup Objectives (RRSCOs) extend to 21 ft-bgs. PCB exceedances of the USCO extend to depths of 11 ft-bgs. Pesticide exceedances of the USCOs extend to 21 ft-bgs. Metals-contaminated soils exceeding the USCO and the Residential Soil Clean up Objectives (RSCOs) extend to depths of 23.5 ft-bgs. These exceedances have been remediated to a Track 1 cleanup of soil as documented in the Construction Completion Report (CCR), initially submitted August 15, 2022 and last revised on August 17, 2022.

VOCs were detected in shallow soil vapor at concentrations exceeding the NYSDOH decision matrices lower threshold levels. Other than acetone, there were no VOC exceedances detected in soil. The removal of the soil exceeding the USCOs resulted in removal of on-Site sources of VOCs that could result in soil vapor intrusion into the future on-Site buildings. In addition, the building is constructed with a vapor barrier and precautionary passive sub-slab depressurization system (SSDS) that will prevent vapors from entering the building.

Finally, the Site's groundwater is impacted with very low concentrations of secondary metals (pre-IRM and post-IRM), chloroform (post-IRM) and PFAS (pre-IRM and post-IRM) exceeding the Ambient Water Quality Standards (AWQS). The pathway of the contaminated groundwater to human receptors is limited to the ingestion of the groundwater or direct exposure through excavation work. However, groundwater in this area of White Plains is not used for drinking water purposes. In addition, the impacted Site groundwater is not likely to have an ecological pathway

since the nearest surface water receptor is 0.3 miles west of the Site.

Summary of Selected Remedial Actions

The remedy for the Site has achieved a Track 1 remedy throughout the Site with no long term engineering or institutional controls required.

The remedial actions selected for the Site include the following:

- Site preparation, including removal of and off-site disposal of existing structures including a parking kiosk and a canopy, light poles, surface concrete curbing and sidewalks, and asphalt; installation of a perimeter fence; and construction of a tracking pad and equipment staging areas.
- Installation of a support of excavation (SOE) system to stabilize the soils prior to excavation.
- Excavation of all Site soils exceeding the USCOs, and therefore achieving Track 1 for soils for the entire Site (completed as an IRM and documented in the final August 17, 2022 Construction Completion Report or CCR).
- Removal and off-Site discharge of contaminated groundwater encountered during dewatering and construction through a filtered carbon dewatering system (completed during IRM).
- Installation of a sub-slab vapor barrier used as the sealing methodology and a precautionary passive SSDS to mitigate against the potential for soil vapor intrusion into the future Site buildings.

1.0 INTRODUCTION

This RAWP includes an analysis of the remedial alternatives available to remediate any remaining contamination as determined from data gathered during the RI, then selects a preferred remedy for any contamination remaining after IRM implementation. A formal Remedial Design Document will not be prepared as the IRM performed at the Site was a Site-wide source removal effort that has achieved a Track 1 Unrestricted Use remedy.

1.1 SITE LOCATION AND DESCRIPTION

The Site was formerly made up of Lot 2 (50 Hamilton Avenue) and a portion of Lot 1 (85 No. Lexington Avenue). Those lots have since merged, making the Site one (1) lot, known as a Portion of Lot 2.1 with a new address of 25 N. Lexington Avenue. The Volunteer submitted a BCA Amendment Application on August 30, 2022 removing a 0.0683-acre portion of the Site because it is an existing City Street/Sidewalk. Therefore, the Site is now 1.4632 acres. A Site Location Map (topographic map) is provided as **Figure 1.1**. The BCP Site is located in an urban downtown area. The Volunteer and NYSDEC have entered into a BCA for the Site, which is identified as BCA Index #C360219-11-21, with an effective date of December 7, 2021. The revised BCP Boundary map is provided in **Appendix A**.

Historic operations at the Site have included a lumber and storage yard, a freight house with railroad transport access, a fire department, a builder supply storage facility, a wholesale feed supply and grinding company, a parking lot and auto service stations.

1.2 PROPOSED REDEVELOPMENT PLAN

The BCP Site is located in an urban downtown area, and the property is currently proposed to be redeveloped with a multi-use building, including 307 apartments, 3,000 square feet of ground-floor retail and 236 parking spaces. The proposed redevelopment plan is included as **Appendix B.**

1.3 DESCRIPTION OF SURROUNDING PROPERTY

The Site is located in an urban area. Surrounding properties are described on **Table 1.1** below.

Table 1.1 - Summary of Surrounding Properties

Direction	Adjacent Property
North	Open deck parking and bus stop
South	Office building
East	Parking lot and bus station
West	St. John's Church

2.0 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

The Site was investigated in accordance with the scope of work presented in the NYSDEC-approved RI/IRMWP prepared by SESI in October 2021, which was approved by the NYSDEC in an Approvals Letter, dated December 7, 2021. The investigation was conducted from December 2021 to July 2022. The RIR was submitted to NYSDEC and NYSDOH on July 27, 2022 and revised on August 16, 2022.

For purposes of evaluating the remedial alternatives associated with the proposed Site redevelopment, the analytical results of the soil samples were compared to the NYSDEC USCOs and RRSCOs. The constituent concentrations in groundwater were compared to the applicable AWQS.

2.1 SOIL REMEDIAL INVESTIGATION FINDINGS

From December 2021 to July 2022, 123 soil samples were collected from 20 soil borings (RI-SB1 through RI-SB20) and 10 test pits (TP1 through TP10). The borings were advanced utilizing direct-push and hollow stem augur drilling techniques. Borings were advanced to depths ranging from 18-30 ft bgs. The test pits were advanced in February and March 2022 by a mini-excavator to depths of approximately 5 to 7 ft-bgs in areas between the SOE boundary and the property line in certain areas to fill in data gaps where needed to determine remedial excavation depths. Up to six (6) soil samples were collected from each boring and up to three (3) soil samples were collected from each test pit at depth intervals that appeared to be most contaminated based on visual observations, photoionization detector (PID) readings and olfactory observations.

Soil samples were submitted to Alpha Analytical laboratories (ALPH) for analysis of full suite TCL/TAL + 30, 1,4-dioxane and PFAS with NYSDEC Category B deliverables. A summary of the soil RIR finding is presented below.

- The VOC acetone was detected in soil boring samples collected from borings RI-SB7 (1-1.5) (0.0729 mg/kg) and RI-SB15 (2-2.5) (2-2.5 mg/kg) at a concentration exceeding the USCO from grade to 2.5 ft-bgs.
- SVOCs including benzo(a)pyrene (2.9 mg/kg), benzo[b]fluoranthene (3.9 mg/kg max.), chrysene (1.45 mg/kg max.), dibenzo(a,h)anthracene (3.9 mg/kg) and indeno (1,2,3-cd) pyrene (0.611 mg/kg max.) were identified Site-wide at concentrations that exceed their USCO and/or the RRSCOs from grade to 5 ft-bgs. Prior Phase II investigations in 2019

and 2021 identified SVOC impacts exceeding the USCOs and RRSCOs to depths of 21 ft-bgs.

- The pesticides 4,4-DDT (0.124 mg/kg max.) 4,4-DDD (0.00597 mg/kg max), 4,4-DDE (0.0267 mg/kg max.), and dieldrin (0.597 mg/kg max.) were detected Site-wide at concentrations exceeding the USCOs to a depth of 5 ft-bgs. The PCB aroclor (16.9 mg/kg max.) was detected at concentrations exceeding the RRSCO at depths from 4 to 6.5 ft-bgs. Prior Phase II investigations in 2019 and 2021 identified pesticide exceedances of the USCOs extend to 21 ft-bgs, and PCBs were identified exceeding the USCOs to depths of 11 ft-bgs. Lead (412 max.) was detected at concentrations exceeding the USCO and RRSCO to depths of 7.5 ft-bgs.

These exceedances have been excavated and removed from the Site for off-site disposal and the end point samples have achieved the Track 1 soil cleanup objectives (SCOs) as documented in the CCR prepared by SESI in August 2022.

2.2 PRE-IRM AND POST-IRM GROUNDWATER REMEDIAL INVESTIGATION RESULTS

Pre-IRM groundwater samples were collected in December 2021 from the three (3) existing wells (JZN-MW-1, JZN-MW-2, and JZN-MW-3), which were installed under the oversight of JZN Engineering. In addition, six (6) monitoring wells (RI-MW1-1 – RI-MW4-1, and RI-MW6-1 and RI-MW8-1) were installed and sampled post-IRM in July 2022. Groundwater samples were analyzed for TCL/TAL+30 (including VOCs, SVOCs, PCBs, pesticides, and metals), PFAS, and 1,4-dioxane.

Groundwater samples were submitted to Alpha and APL laboratories for analysis of full suite TCL/TAL + 30, 1,4-dioxane and PFAS with NYSDEC Category B deliverables. A summary of the groundwater RIR finding is presented below.

- The VOC chloroform was detected in two (2) post-IRM groundwater samples at concentrations of 8.21 ug/L and 8.98 ug/L, slightly exceeding the AWQS of 7 ug/L.
- The pre-IRM and post-IRM groundwater sampling identified only secondary naturally occurring metals including iron (695 mg/kg max.), manganese (1,470 mg/kg max.), and magnesium (70,500 max.) at concentrations exceeding the AWQS,
- Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were detected in the pre-IRM sampling at concentrations of 12.3 ng/L and 20.9 ng/L, and in the post-IRM

sampling at concentrations of 35.4 ng/L and 14.2 ng/L, only slightly exceeding the groundwater screening values of 10 ug/L.

The Site's post-IRM groundwater is impacted with very low concentrations of chloroform and secondary naturally occurring metals (iron, magnesium, and manganese), as well as low levels of PFOS and PFOA. The only VOC exceeding the AWQS is chloroform that was detected at a concentrations of 8.21 and 8.98 ug/L, slightly exceeding the AWQS of 7 ug/L. The very low concentrations of chloroform in groundwater exceeding the AWQS will not require remediation. In addition, the low concentrations of chloroform are not anticipated to cause a vapor intrusion condition to the future building. Since PFOS and PFOA were found in the groundwater both before and after the IRM soil removal work, these low level exceedances of PFOS and PFOA in the groundwater do not appear to be present from prior fire department operations but rather are present in the area-wide groundwater since such levels have been found at other nearby White Plains BCP sites.

2.3 SOIL VAPOR REMEDIAL INVESTIGATION RESULTS

A total of eight (8) soil vapor points (SVS-1 through SVS-8) were installed and sampled during the RI. The vapor points were installed to a depth of 5 ft-bgs. New York State does not have promulgated standards for soil vapor. However, for discussion purposes, SESI has used the NYSDOH Matrices lower threshold levels to evaluate the Matrix A, B, and C listed compounds.

Numerous VOCs were detected in sub-slab vapor across the Site. The highest concentrations of petroleum hydrocarbon (PHC) VOCs and chlorinated VOCs (CVOCs) were detected in vapor sample SVS-6. Specifically, the PHC VOC benzene was detected at a concentration of 12 ug/m^3, ethylbenzene at a concentration of 3.4 ug/m^3, heptane at a concentration of 10 ug/m^3, hexane at a concentration of 26 ug/m^3, toluene at a concentration of 34 ug/m^3 and a total xylene concentration of 15 ug/m^3. The CVOC tetrachloroethene (PCE) was detected at a concentration of 26 ug/m^3, and trichloroethene (TCE) detected at 17 ug/m^3. TCE was also detected in sample SVS-8 at a concentration of 11 ug/m3. The TCE concentrations exceed the Matrix A lower threshold levels. Prior investigations in 2019 identified vinyl chloride at a concentration of 11 ug/m^3 (SV-7), exceeding the Matrix C lower threshold level.

All contaminated soils have been excavated to achieve a Track-1 remedy and on-Site soils did not contain any VOCs Track 1 SCO exceedances. Therefore, there is no VOC source in the Site soils.

2.4 GEOPHYSICAL INVESTIGATION RESULTS

On December 15, 2021, a geophysical survey was completed by RSK Environmental Group under the direction of SESI. The scope of work was to locate and mark detectable utilities in accessible areas of the property. The utilities identified included electric and storm drain. No anomalies indicative of underground storage tanks (USTs) were identified.

2.5 GEOLOGICAL CONDITIONS

According to the 1970 Geologic Map of New York – Lower Hudson Sheet published by the University of the State of New York, the bedrock underlying the Site is of the Manhattan schist. Soils are composed of brown fine sand down to an approximate depth ±88 ft-bgs. Based on soil borings conducted during SESI's subsurface investigations in 2019 and 2021 and by JZN Engineering in April 2021, and SESI's Remedial Investigation, the subsurface geology generally is characterized as fill material of brown medium to fine sand, with traces of fine gravel and silt from 0 to 12 ft-bgs. The fill material is underlain by native sand deposits consisting of loose to dense sand with varying amounts of silt to depths of 88 feet below grade. The native sands were underlain by gneiss bedrock at depths of 55 to 88 feet below grade.

Groundwater was encountered at depths ranging from approximately 17.5 to 25.5 feet below the original Site grade in the JZN monitoring wells gauged by SESI in December 2021. The groundwater gradient across the Site direction is a southwesterly direction.

2.6 CONCEPTUAL SITE MODEL

As stated above, all Site soils exceeding the Track 1 SCOs (ie. USCOs) have been excavated and removed from the Site, and thus no longer factor into the Conceptual Site Model.

VOCs were detected in shallow soil vapor at concentrations exceeding the NYSDOH decision matrices lower threshold levels. Other than acetone, there were no VOC exceedances detected in soil. Removal of soil exceeding the USCOs resulted in removal of any potential on-Site sources of VOCs that could have caused soil vapor intrusion into the future on-Site buildings. Nevertheless, the building will have a vapor barrier and passive SSDS to prevent vapors from

entering the building to the extent emanating onto the Site from nearby unremediated off-Site sources.

Finally, the Site's groundwater is impacted with very low concentrations of secondary metals and chloroform and PFOS and PFOA slightly exceeding the AWQS. The pathway of the contaminated groundwater to human receptors is limited to the ingestion of the groundwater or direct exposure through excavation work. However, groundwater in this area of White Plains is not used for drinking. In addition, the impacted Site groundwater is not likely to have an ecological pathway since the nearest surface water receptor is 0.3 miles west of the Site. Finally, excavation at the Site down to the water table is unlikely once the proposed project is completed.

2.7 IDENTIFICATION OF STANDARDS, CRITERIA AND GUIDANCE

The following standards and criteria typically will apply to Site Characterizations, Remedial Investigations, remedy selection, UST closures, remedial actions and Site management activities:

- DER-10: Technical Guidance for Site Investigation and Remediation
- DER-13: Strategy for Evaluating Soil Vapor Intrusion at Remedial Sites in New York New York State Department of Environmental Conservation
- 6 NYCRR Part 257: Air Quality Standards
- 29 CFR Part 1910.120: Hazardous Waste Operations and Emergency Response
- TOGS 1.1.1: Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations
- Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (October 1994)
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (Final October 2006)
- DER Interim Strategy for Groundwater Remediation at Contaminated Sites in New York State
- 6 NYCRR Part 375 - Regulations Subparts 1, 3 and 6 applicable to the Brownfield Cleanup Program
- Citizen Participation in New York's Hazardous Waste Site Remediation Program: A Guidebook (June 1998)
- USEPA Office of Solid Waste and Emergency Response Directive 9355.047FS Presumptive Remedies: Policy and Procedures (September 1993)

- USEPA Office of Solid Waste and Emergency Response Directive 9355.048FS Presumptive Remedies
- Site Characterization and Technology Selection for CERCLA sites with Volatile Organic Compounds in Soils (September 1993)
- 6 NYCRR Part 612: Registration of Petroleum Storage Facilities (February 1992)
- 6 NYCRR Part 613: Handling and Storage of Petroleum (February 1992)
- 6 NYCRR Part 614: Standards for New and Substantially Modified Petroleum Storage Tanks (February 1992)
- 6 NYCRR Part 371: Identification and Listing of Hazardous Wastes (November 1998)
- 6 NYCRR Subpart 374-2: Standards for the Management of Used Oil (November 1998)
- 6 NYCRR 375 Table 375-6.8(a) and Table 375-6.8(b)
- 6 NYCRR Parts 700-706: Water Quality Standards (June 1998)
- 40 CFR Part 280: Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks
- STARS #1: Petroleum-Contaminated Soil Guidance Policy
- STARS #2: Biocell and Biopile Designs for Small-Scale Petroleum-Contaminated Soil Projects
- SPOTS #14: Site Assessments at Bulk Storage Facilities (August 1994)
- Spill Response Guidance Manual
- Permanent Closure of Petroleum Storage Tanks (July 1988)
- NYSDOH Environmental Health Manual CSFP-530 - “Individual Water Supplies - Activated Carbon Treatment Systems”
- 40 CFR Part 144: Underground Injection Control Program
- 10 NYCRR Part 67: Lead
- 12 NYCRR Part 56: Industrial Code Rule 56 (Asbestos)
- 6 NYCRR Part 175: Special Licenses and Permits--Definitions and Uniform Procedures
- 6 NYCRR Part 371: Identification and Listing of Hazardous Wastes (November 1998)
- 6 NYCRR Part 372: Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities (November 1998)

- 6 NYCRR Subpart 374-1: Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities (November 1998)
- 6 NYCRR Subpart 374-3: Standards for Universal Waste (November 1998)
- 6 NYCRR Part 608: Use and Protection of Waters
- TAGM 4013: Emergency Hazardous Waste Drum Removal/ Surficial Cleanup Procedures (March 1996)
- TAGM 4059: Making Changes to Selected Remedies (May 1998)
- TOGS 1.3.8: New Discharges to Publicly Owned Treatment Works
- TOGS 2.1.2: Underground Injection/Recirculation (UIR) at Groundwater Remediation Sites
- OSWER Directive 9200.4-17: Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites (November 1997)
- CP-43: Groundwater Monitoring Well Decommissioning Policy (November 2009)
- Sampling, Analysis, and Assessment of Per-and-Polyfluoroalkyl Substances, Under NYSDEC Part 375 Remedial Programs (Draft June 2022).
- The activity is a component of a program selected by a process complying with the public participation requirements of section 1.10, to the extent applicable.

2.8 ENVIRONMENTAL AND PUBLIC HEALTH ASSESSMENTS

2.8.1 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

This exposure assessment discusses potential migration routes by which chemicals in the environment may be able to reach human receptors in accordance with NYSDEC DER-10 sections 3.14(c)17, 3.3(c)4 and Appendix 3B. This discussion is based on current and hypothetical future Site conditions.

An exposure assessment must evaluate five (5) elements that comprise an exposure pathway. A complete exposure pathway includes the following:

1. A description of the contaminant source. If the original source is unknown, then a description of the contaminated environmental medium at the point of exposure;
2. An explanation of the transport mechanism;
3. An identification of all potential exposure points;
4. A description of the exposure route at the contact point; and
5. A receptor population.

There are some exposure pathways related to the contamination if left unaddressed under current conditions:

Soil

SVOCs, metals, pesticides and PCBs were identified at concentrations in soil exceeding the NYSDEC USCOs. However, all soils exceeding the Track 1 USCOs have been removed from the Site and there is no longer an exposure point or exposure route for soils.

Groundwater

Potential groundwater exposure points include ingestion, dermal contact and inhalation of vapors. White Plains utilizes municipal water (not groundwater) for drinking purposes. Thus, ingestion as a potential exposure point may be eliminated from further evaluation.

Potential exposures through dermal contact could arise during future construction excavation where workers, visitors, or trespassers may be exposed to groundwater. However, since excavation work at the Site has been completed and a building slab has now been constructed, this exposure pathway is no longer viable.

Surface Water and Sediment

Surface water is not present on the Site. Thus, this exposure pathway may be eliminated from further evaluation.

Soil Vapor

When volatile organics are detected in soil gas, it creates a potential exposure to building occupants through vapors accumulating beneath structures or impacting indoor air quality within a structure. CVOC levels in the Site soil vapors were found to exceed the NYSDOH Matrices lower threshold values before the IRM soil remediation was implemented. The exposure route for soil vapor is through the inhalation of the contaminated soil vapor that may intrude into the enclosed spaces of any planned Site development. However, any potential prior soil source of VOCs has been remediated to Track 1 USCOs. Low concentrations of the VOC chloroform in groundwater is not at concentrations that would cause a vapor intrusion condition and there are no NYSDOH guidance levels for this VOC.

The building design includes two (2) levels of ventilated subgrade parking and mechanical areas under the first level (Street level) of the building as shown on the architectural drawing A-301 provided in **Appendix B**. The structure is constructed with a 24-inch to 54-inch Mat slab underlain by a waterproofing membrane as shown on the B3 Parking Foundation Plan S-101 in Appendix A. In addition, a passive SSDS has proactively been installed beneath eastern portion of the building. Therefore, the building has been designed to prevent soil vapor intrusion as an exposure pathway as shown on **Figure V-1** and **Figure D-1** in **Appendix C**.

2.8.2 FISH AND WILDLIFE IMPACT ANALYSIS

The Site does not contain any ecologically sensitive resources and hence the contaminated groundwater is not expected to have any impacts on any ecological resources.

2.9 SIGNIFICANT THREAT

The NYSDEC and NYSDOH has evaluated the RIR to discern if this Site poses a significant threat to human health and the environment. In a letter prepared by the New York State Bureau of Environmental Exposure Investigation (BEEI), dated September 21, 2022 to the NYSDEC, the BEEI has determined that the Site does not pose a significant threat to public health. The NYSDEC and NYSDOH have evaluated the RIR and the BEEI letter and determined that the Site does not poses a significant threat to human health and the environment.

2.10 REMEDIAL ACTION OBJECTIVES

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) have been identified for this Site.

2.10.1 GROUNDWATER

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

2.10.2 SOIL

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater contamination.

2.10.3 SOIL VAPOR RAOs

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from potential present and future soil vapor intrusion into buildings at the site.

3.0 DESCRIPTION OF REMEDIAL ACTION PLAN

3.1 EVALUATION OF REMEDIAL ALTERNATIVES

The objective of the remedy is to achieve an unconditional Track 1 cleanup. The Site has already achieved a Track 1 soil remedy by removal of all soil exceeding the USCOs that was completed as part of an IRM. Low concentrations of the CVOC chloroform (8.21 to 8.98 Ug/L) were detected in groundwater slightly exceeding the AWQS of 7 ug/L. These concentrations will not require remediation. In addition, these very low concentrations would not cause a vapor intrusion condition.

Track 1

A remedy pursuant to this track must achieve compliance with the USCOs set forth in 6 NYCRR Table 375-6.8(a) in the remaining soils on the Site after remedial excavation. The Site soils have achieved a Track 1 remedy alternative for soils exceeding the USCOs as documented in the CCR submitted to NYSDEC in August 2022.

In a conditional Track 1 remedy, institutional and engineering controls are allowed only for periods of less than five (5) years except in the limited instance where a volunteer has conducted remedial activities resulting in a bulk reduction in groundwater contamination to asymptotic levels. As documented the RIR, the Site's groundwater is only marginally impacted with VOCs and PFOS/PFOA at levels that are not indicative of a source area, are consistent with concentrations coming onto the Site, and are similar to other sites in the area. Furthermore, the IRM is complete and has removed all soil above the USCOs, thus removing any potential sources contributing to groundwater contamination. Therefore, no additional groundwater remediation or monitoring is needed.

Institutional and engineering controls may be implemented to address contamination in groundwater and soil vapor. RI groundwater samples were collected prior to and after the soil IRM. The groundwater remedial investigation did not result in any exceedances of the AWQS except for very low concentrations of chloroform, PFOA and PFOS, and a few secondary metals. Therefore no institutional or engineering controls will be required for Site's groundwater.

Any soil source of VOCs has been remediated to Track 1 USCOs. Low concentrations of one VOC – chloroform - in groundwater is not at concentrations that would cause a vapor intrusion condition. In addition, the building design includes two (2) levels of ventilated subgrade parking

and mechanical areas under the first level (Street level) of the building, which will mitigate against vapor intrusion into the building, in addition to the a passive SSDS and vapor barrier that were proactively installed beneath building to eliminate this potential exposure pathway. Therefore, no institutional or engineering controls will be required for soil vapor.

Track 2

A Track 2 remedy consists of achievement of the application restricted use soil cleanup objectives, which for this Site would be the restricted residential SCOs or "RRSCOs". This track requires the Volunteer to implement at least a soil cleanup that achieves the lower of the RRSCOs, or the protection of groundwater water soil cleanup objectives (SCOs) from the tables in 6 NYCRR 375-6.8(b) within the top 15 feet of soil (or bedrock if less than 15 feet). Under a Track 2 remedy, the remedial program may include the use of long-term institutional or engineering controls to address residual contamination related to other media including, but not limited to groundwater and soil vapor.

Because the soils on the Site exceeding USCOs have already been excavated to achieve an unconditional Track 1 remedy for soils, discussion of a Track 2 remedy is no longer relevant for this Site.

Track 4

A Track 4 remedy for a restricted residential use does not need to meet specific soil cleanup objectives, but requires source removal and typically a Site-wide cover system. The cover in landscaped areas requires soil that meets the restricted use SCOs in the upper two (2) feet by means of either soil removal or installation of the cover system. The system must consist of 24 inches of soil, with the upper six (6) inches of soil of sufficient quality to maintain a vegetative Short and long-term institutional and engineering controls are allowed to achieve protection of public health and the environment.

Because the soils on the Site exceeding USCOs have already been excavated to achieve an unconditional Track 1 remedy for soils, discussion of a Track 4 remedy is no longer relevant for this Site.

No Action Alternative

Prior to the IRM, the no action alternative would leave existing sources of contamination in soil, groundwater and soil vapor. The no action alternative would have been unacceptable and this was not compared to the factors below. Since the IRM already implemented has removed the soil source of contamination on the Site, a Track 1 remedy has already been achieved.

Protection of human health and the environment:

Although all tracks would provide adequate protection of human health and the environment, Track 1 is more protective than the other cleanup tracks because it would remove all soil contamination as compared to NY's most stringent SCOs. A Track 2 or 4 remedy could also be protective of human health and the environment if the proper long-term engineering and institutional controls are put in place and managed in a Site Management Plan (SMP). However, a Track 1 soil remedy has already been achieved.

Compliance with standards, criteria, and guidelines (SCGs):

All cleanup tracks will achieve applicable cleanup standards, criteria or guidance. However, a Track 1 cleanup achieves a more stringent set of standards than a Track 2 cleanup. A Track 4 cleanup is not driven by standards but rather source removal and SMP engineering controls and institutional controls to manage the remaining contamination in place to enable the safe reuse of the site for restricted residential purposes. The NYSDEC SCGs are presented in **Appendix D**.

Short-term effectiveness and impacts:

Generally, Track 1 provides the best short-term effectiveness because it promptly removes the most contaminant mass from the Site. Track 2 also accomplishes this, but to a lesser extent. Track 4 is less effective in this regard. Tracks 1 and 2 are somewhat less favorable in terms of short-term impacts primarily because mass removal of the contaminated soils generates more truck trips and potential dust exposure than a Track 4 limited removal remedy. A Track 4 approach also reduces the risk of construction worker exposure by reducing the volume of contaminated soil being managed, and has less potential to cause dust and traffic issues. Excavation may result in a greater potential for migration of impacts from the open excavation (e.g. wind erosion, storm water intrusion, etc.); however, an air monitoring program and erosion and sediment controls implemented during the soil IRM minimized and controlled any dust migration from the Site.

Long-term effectiveness and performance:

Generally, Track 1 provides the best short-term effectiveness because it promptly removes the most contaminant mass from the Site. Track 1 is somewhat less favorable in terms of short-term impacts primarily because mass removal of the contaminated soils generates more truck trips than a Track 2 or 4 limited removal remedy. However, best management practices in relation to soil handling, the community air monitoring program (CAMP), and erosion and sediment controls, and dust control measures have been implemented during the Track 1 IRM, which minimized and controlled any migration of dust on-Site and off-Site.

Reduction of toxicity, mobility, or volume of contaminated material:

Tracks 1 through 4 will reduce of toxicity and mobility. A Track 1 or 2 would result in more reduction in the volume of contaminated soils than in a Track 4 clean-up. While Track 4 provides a relatively smaller reduction in volume than the other tracks, it relies primarily on the decrease of contaminant mobility.

Constructability:

Track 1 was an implementable remedy given the location and the planned use for the Site. While there are short-term impacts from a Track 1 remedy, the Site is located in the middle of an urban area, and, therefore, off-Site disposal of the contaminated soils in trucks did not pose a constructability problem. Moreover, these short-term impacts were mitigated through implementation of the CAMP and health and safety plan (HASP), which employed truck washing and odor and dust control measures. Therefore, Track 1 was an implementable remedy for this Site.

Cost Effectiveness:

The preferred Track 1 alternative provided the optimal suitability of the eight (8) accompanying evaluation factors with minimal remedial cost and the maximum long term benefit. The contaminated soil/fill layer extended to a maximum depth of 25 ft. bgs. Removal of the soil exceeding the USCOs to achieve Track 1 Site-wide was the costliest of the remedial alternatives. However, this mass removal resulted in long-term savings by eliminating the need for indefinite cap monitoring and maintenance. Therefore, a Track 1 remedy for the Site was cost effective over the long term.

Community Acceptance:

A community outreach program is incorporated into all remedial alternatives, per NYSDEC Brownfield Program law and regulations. The Site development will include affordable housing that includes a mix of modern residences and retail stores near the Metro North train station. The community should accept any of the remedies; however, the Track 1 remedy is likely preferable to the community since it reduced the most contamination and prevents future off-Site issues.

Land use:

All cleanup tracks would achieve remediation for the planned residential use of the Site, which is consistent with White Plains proposed plans for the area. Developing the Site will create short-term construction impacts, but the creation of a new affordable downtown housing project will provide significant community benefits.

Zoning: All of the proposed remedies under each track will facilitate the Site to be utilized for a proposed mixed commercial-residential development, which is consistent with applicable zoning laws, local Master Plan, and anticipated future use of the Site.

Applicable comprehensive community master plans or land use plans: Implementation of all Tracks (with institutional controls) cleanup will facilitate the proposed commercial-residential development, which is consistent with current local land use plan.

Surrounding property uses: Any cleanup approach is not expected to significantly impact land use of the surrounding properties as the truck traffic and access will be on public roads. There were short term impacts from the remediation and will be impacts from the ongoing construction project, but these will result in long-term benefits of converting defunct, abandoned and contaminated property into new affordable housing and commercial uses.

Citizen Participation: Citizen Participation during implementation of a remedial program will proceed in accordance with the Citizen Participation Plan included as Appendix E of the RI-IRMWP and as noted above will have minimal community impact. Any short-term impacts were addressed by the CAMP and HASP.

Environmental justice concerns: There are no known environmental justice concerns associated with this project.

Land use designations: A Track 1 remedy, that has been achieved, will not restrict any current or future land use designations. A restricted residential Track 2 will have very minimal restrictions on the future land use of the property.

Population growth patterns: Any of the proposed remedies will not impact reasonably anticipated population growth patterns in the area other than to better accommodate growth by providing for new downtown, transit-oriented affordable housing.

Accessibility to existing infrastructure: Access to existing infrastructure is present in the surrounding area, and there is access to mass transit via the Metro North White Plains train station 0.2 miles away. Some on-site utility infrastructure will likely have to be demolished and removed as part of the remediation. However, new infrastructure will be installed subsequent to the remediation as part of the redevelopment.

Proximity to natural resources: The closest surface water body is Bronx River, which is located 0.3 mile to the west of the subject property and leads to the Long Island Sound. Storm water drainage patterns are generally consistent with the surrounding topography and primarily flow to the west.

Off-Site vapor impacts: Potential off-Site vapor impacts were identified during the RI activities. However, any soil source of VOCs has been remediated to Track 1 USCOs. Low concentrations of VOCs in groundwater are not at concentrations that would cause a vapor intrusion condition

Geography and geology of the Site: See Section 2.5 above.

Current Institutional Controls: There are no current institutional controls associated with the Site.

3.2 SELECTION OF THE PREFERRED METHOD

The remedial alternatives analysis determined that an unconditional Track 1 remedy has been achieved for soil, soil vapor, and groundwater.

3.3 SUMMARY OF SELECTED REMEDIAL ACTIONS

- Site preparation activities including building demolition, lead paint and asbestos abatement and historic foundation removal (completed during IRM),
- Installation of an SOE system (completed as IRM),
- Excavation of all Site soils exceeding the USCOs and therefore achieving Track 1 for soils for the entire Site (completed as an IRM),
- Removal and off-Site discharge of contaminated groundwater encountered during dewatering and construction through a filtered carbon dewatering system (completed during IRM),

- Installation of soil vapor barrier/waterproofing membrane sealing layer in the sub slab under the enclosed portion of the building footprint that will include a lobby, offices, storage rooms, and residential apartment units (completed), and
- Installation of an SSDS under the enclosed portion of the building footprint that will serve as a offices and residential/storage area (completed).

4.0 REMEDIAL ACTION

Removal of all contaminated soils as an IRM has been implemented in accordance with the RI-IRMWP and a Track 1 remedy has already been achieved as documented in the CCR. As described above and shall be attached to and incorporated into the Final Engineering Report (FER).

4.1 CLEANUP OBJECTIVES

- The Soil Cleanup Objectives for this Site are the Track 1 USCOs.
- The groundwater cleanup objectives will be the NYSDEC TOGS AWQS.
- The soil vapor objectives will be the NYSDOH Guideline Values and Decision Matrices for the specific contaminants of concern.

4.2 REMEDIAL PERFORMANCE EVALUATION

4.2.1 SOIL SAMPLING

The Site soils have achieved a Track 1 remedy alternative for soils exceeding the USCOs as documented in the CCR submitted to NYSDEC in August 2022. Therefore, no remedial performance sampling is needed for soil.

4.2.2 GROUNDWATER SAMPLING

As documented the RIR, the Site's groundwater is only marginally impacted with secondary metals, one VOC and PFOS/PFOA at levels that will not require remediation. Therefore, no additional groundwater monitoring is needed. The monitoring wells will be decommissioned in accordance with CP-43 and will be documented in the Final Engineering Report.

4.2.3 VAPOR INTRUSION MITIGATION AND EVALUATION

Any soil source of VOCs in soils has been remediated to Track 1 SCOs. Low concentrations of one VOC in groundwater is not at concentrations that would cause a vapor intrusion condition. In addition, the building design includes two (2) levels of ventilated subgrade parking and mechanical areas under the first level (Street level) of the building, a passive SSDS and vapor barrier, all of which were proactively installed beneath building to eliminate this potential exposure pathway. Therefore, no institutional or engineering controls will be required for soil vapor.

5.0 ENGINEERING CONTROLS

The remedy for the Site did not require the construction of any engineering control systems.

6.0 INSTITUTIONAL CONTROLS

The remedy for the Site did not require the construction of any institutional control systems.

7.0 FINAL ENGINEERING REPORT

A FER will be submitted to NYSDEC following implementation of the Remedial Action defined in this RAWP. The FER provides the documentation that the remedial work required under this RAWP has been completed and has been performed in compliance with this plan. The FER will include the previously submitted CCR as an attachment which provide a comprehensive account of the locations and characteristics of the Site preparation activities, SOE installation activities and all material removed from the Site including the surveyed map(s) of all sources. The FER will include as-built drawings for all constructed elements, certifications, manifests, bills of lading. The CCR provided a description of the changes in the Remedial Action from the elements provided in the RI-IRMWP and associated design documents. The CCR provided a tabular summary of all performance evaluation sampling results and all material characterization results and other sampling and chemical analysis performed as part of the Remedial Action. The CCR provided test results demonstrating that all mitigation and remedial systems are functioning properly. Applicable analytical data collected under this CCR was accompanied by Data Usability Summary Reports (DUSRs) in the CCR. The FER will document that all applicable analytical data was submitted to and accepted by the Department in the Department's approved Electronic Data Deliverable format. The FER will be prepared in conformance with DER-10.

The FER will include an itemized tabular description of actual costs incurred during all aspects of the Remedial Action.

The FER will provide a thorough summary of all residual contamination left on the Site after the remedy is complete. Since there is no residual soil contamination in exceedance of the Track 1 SCOs in 6 NYCRR Part 375-6, there is no need for a table that shows exceedances of Track 1 SCOs in the FER .

The FER will include an accounting of the destination of all material removed from the Site, including excavated contaminated soil, historic fill, solid waste, hazardous waste, non-regulated material and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. It will provide an accounting of the origin and chemical quality of all material imported onto the Site.

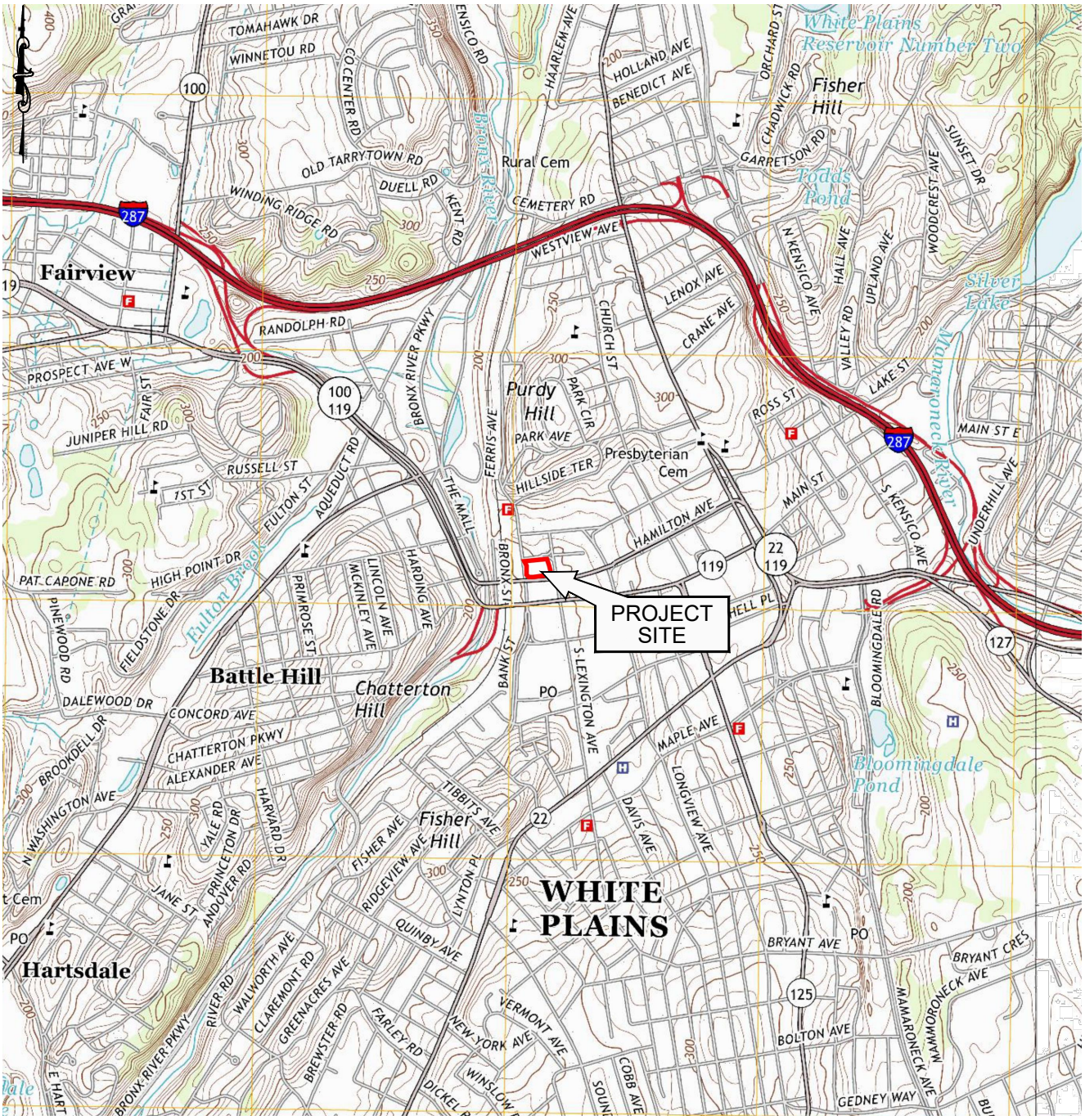
Before approval of a FER and issuance of a Certificate of Completion, all project reports must be submitted in digital form on electronic media.

7.1 CERTIFICATIONS

The following certification will appear in front of the Executive Summary of the Final Engineering Report. The certification will be signed by the Remedial Engineer Fuad Dahan who is a Professional Engineer registered in New York State. This certification will be appropriately signed and stamped. The certification will include the following statements:

I _____certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Remedial Work Plan was implemented and that all construction activities were completed in substantial conformance with the DER-approved Remedial Work Plan.

Figures



REFERENCE:
HISTORICAL TOPOGRAPHICAL MAP PREPARED BY EDR, MAP DATED 2014.

Scale 1" = 2000'

0 2000 4000

NW N NE
W E
SW S SE

TP, White Plains, 2013, 7.5-minute
NE, Glenville, 2012, 7.5-minute

FIG-1.1

NORTH LEXINGTON AVENUE
WHITE PLAINS, WESTCHESTER COUNTY, NY

SITE LOCATION MAP

SESI CONSULTING ENGINEERS D.P.C.

SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL

12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

DRAWN BY: aas
CHECKED BY: TTK
SCALE: AS NOTED
DATE: 05/07/2021
JOB NO.: 11814

N:\ACAD\11814\CAD\PHASE I ESA\11814 – FIG–1 – SITE LOCATION MAP.DWG 05/07/21 03:52:09PM, aas, LAYOUT:FIG–1

Appendix A:

Revised BCP Boundary Map

REVISED BCP SITE LEGAL DESCRIPTION
P/O SECTION: 125.66 BLOCK: 5 LOT: 2.1
COUNTY OF WESTCHESTER, CITY AND STATE OF NEW YORK

BEGINNING at a point on along the northerly line of Hamilton Avenue at the westerly terminus of a curve having a radius of 20.00 feet connecting said northerly line of Hamilton Avenue with the westerly line of North Lexington Avenue as shown on **FILED MAP No. 21580;**

THENCE along said northerly line of Hamilton Avenue, South 84 degrees 55 minutes 13 seconds West, a distance of 254.715 feet to a point of curvature;

THENCE northwesterly along the arc of a curve to the right having a radius of 25.00 feet, a central angle of 90 degrees 01 minutes 00 seconds and an arc length of 39.277 feet to its point tangency with the easterly line of Ferris Avenue;

THENCE along westerly line of the environmental easement area, North 05 degrees 03 minutes 48 seconds West, a distance of 72.778 feet and North 02 degrees 03 minutes 23 seconds West, a distance of 103.334 feet to a point of curvature;

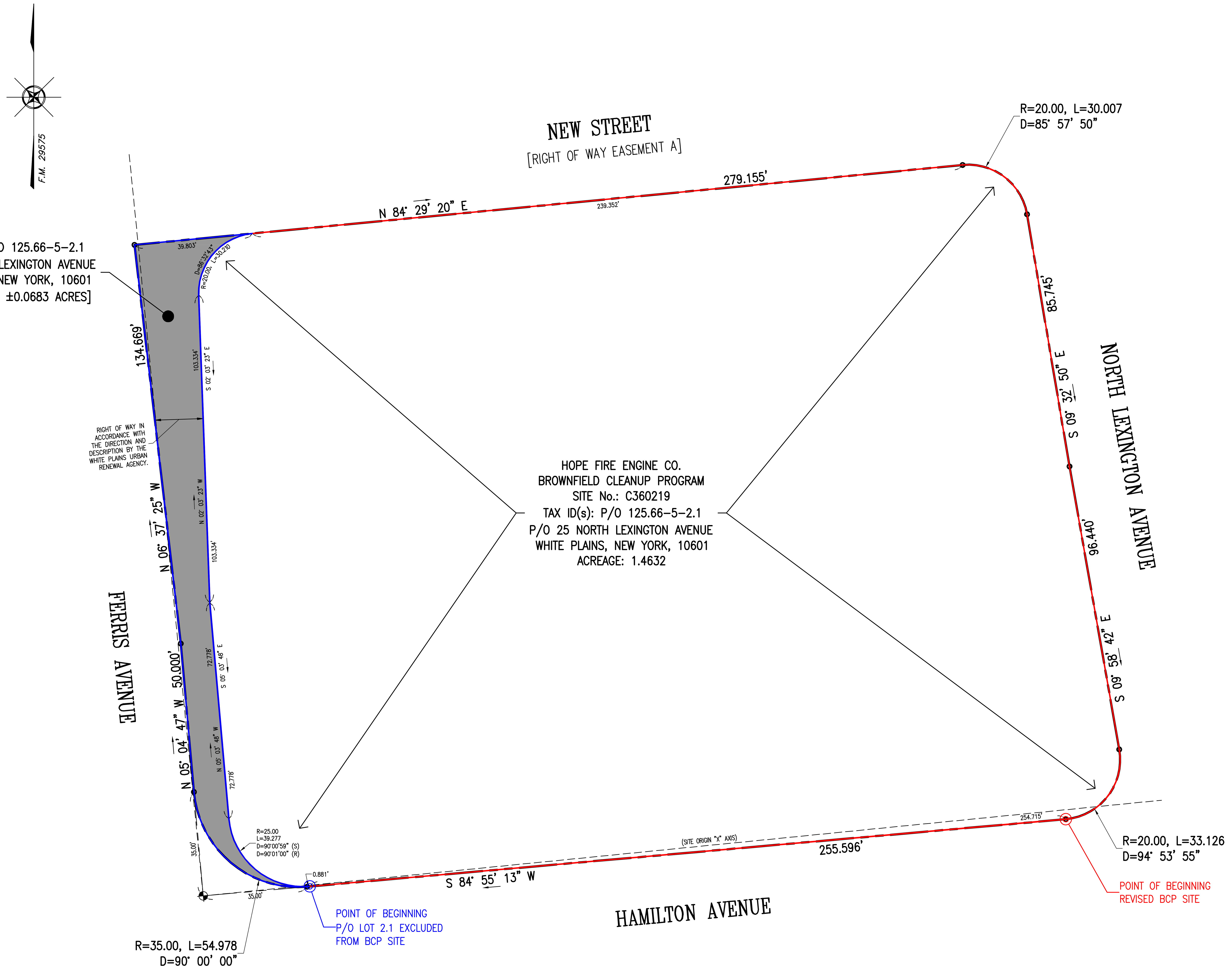
THENCE northeasterly along the arc of a curve to the right having a radius of 20.00 feet, a central angle of 86 degrees 32 minutes 43 seconds and an arc length of 30.210 feet to its point of intersection with the southerly line of Right of Way Easement A as shown on the aforesaid **FILED MAP No. 21580**;

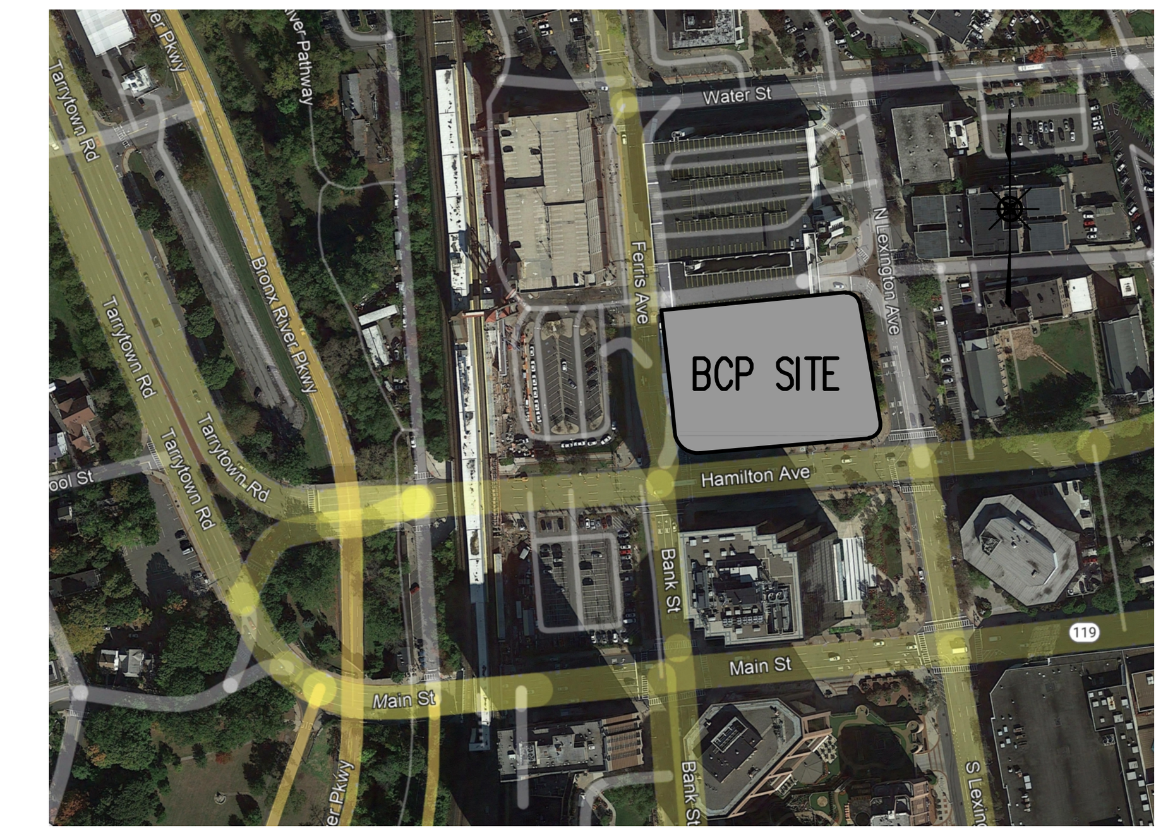
THENCE through the aforesaid Delivery Parcel No.2 and along said southerly line of Right of Way Easement A, North 84 degrees 29 minutes 20 seconds East, a distance of 239.352 feet to a point of curvature and thence southeasterly along the arc of a curve to the right having a radius of 20.00 feet, a central angle of 85 degrees 57 minutes 50 seconds and an arc length 30.007 feet to its point of tangency with the aforesaid westerly line of North Lexington Avenue;

THENCE along said westerly line of North Lexington Avenue, South 09 degrees 32 minutes 50 seconds East, a distance of 85.745 feet and South 09 degrees 58 minutes 42 seconds East, a distance of 96.440 feet to a point of curvature;

THENCE southwesterly along the arc of a curve to the right having a radius of 20.00 feet, a central angle of 94 degrees 53 minutes 55 seconds and an arc length of 33.126 feet to its point of tangency with the aforesaid northerly line of Hamilton Avenue, the point and place of **BEGINNING**.

Contains within said bounds 63,740 square feet more or less or 1.4632 acres of land more or less.





VICINITY MAP
NOT TO SCALE

P/O LOT 2.1 EXCLUDED FROM BCP SITE
SECTION: 125.66 BLOCK: 5 LOT: 2.1
COUNTY OF WESTCHESTER
CITY AND STATE OF NEW YORK

RUNNING from a point on along the northerly line of Hamilton Avenue at the westerly terminus of a curve having a radius of 20.00 feet connecting said northerly line of Hamilton Avenue with the westerly line of North Lexington Avenue as shown on **FILED MAP no. 21580**;

THENCE along said northerly line of Hamilton Avenue, South 84 degrees 55 minutes 13 seconds West, a distance of 254.715 feet to a point of **BEGINNING**;

THENCE along said northerly line of Hamilton Avenue, South 84 degrees 55 minutes 13 seconds West, a distance of 0.881 feet to a point of curvature;

THENCE northwesterly along the arc of a curve to the right having a radius of 35.00 feet, a central angle of 90 degrees 00 minutes 00 seconds and an arc length of 54.978 feet to its point tangency with the easterly line of Ferris Avenue;

THENCE along said easterly line of Ferris Avenue, North 05 degrees 04 minutes 47 seconds West, a distance of 50.000 feet and North 06 degrees 37 minutes 25 seconds West, a distance of 134.669 feet to its point of intersection with the southerly line of Right of Way Easement A as shown on the aforesaid **FILED MAP no. 21580**;

THENCE through the aforesaid Delivery Parcel No.2 and along said southerly line of Right of Way Easement A, North 84 degrees 29 minutes 20 seconds East, a distance of 39.803 feet to a point of non-tangent curvature;

THENCE southwesterly along the arc of a curve to the right having a radius of 20.00 feet, a central angle of 86 degrees 32 minutes 43 seconds and an arc length 30.210 feet to its point of tangency with the westerly line of the revised BCP (brownfield cleanup program) Site;

THENCE along aforesaid westerly line of BCP Site, South 02 degrees 03 minutes 23 seconds East, a distance of 103.334 feet and South 05 degrees 03 minutes 48 seconds East, a distance of 72.778 feet to a point of curvature;

THENCE southeasterly along the arc of a curve to the right having a radius of 25.00 feet, a central angle of 90 degrees 01 minutes 00 seconds and an arc length of 39.277 feet to its point of tangency with the aforesaid northerly line of Hamilton Avenue, the point and place of **BEGINNING**.

Contains within said bounds 2,977 square feet more or less or 0.0683 acres of land more or less.

THE PURPOSE OF THIS MAP IS TO INDICATE THE AREA (BOUNDED BY THE METES AND BOUNDS SHOWN ON THIS MAP) INCLUDED FOR A BROWNSFIELD SUBMISSION. THE METES AND BOUNDS OF THE BOUNDARY SHOWN IN THIS MAP DOES NOT INDICATED OWNERSHIP FOR WHOM THIS MAP IS PREPARED AND IS UNLAWFULL FOR USE IN TRANSFER OF TITLE.

THE SURVEYOR'S SEAL, SIGNATURE AND ANY CERTIFICATION APPEARING HEREON SIGNIFY THAT, TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR LAND SURVEYS AS SET FORTH IN THE CODE OF PRACTICE ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, INC.

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

ACREAGE SCHEDULE:

PARCEL	SQ. FT.	ACRES
ORIGINAL BCP SITE (LOT 2.1)	66,716 ±	1.5315 Ac.
REVISED BCP SITE AREA	63,740 ±	1.4632 Ac.
P/O LOT 2.1 EXCLUDED FROM BCP SITE	2,977 ±	0.0683 Ac.

"BCP SITE" LEGEND:

- LOT 2.1 BOUNDARY LINE / ORIGINAL BCP SITE
- REVISED BCP SITE AREA BOUNDARY LIMITS
- P/O LOT 2.1 EXCLUDED FROM BCA SITE

BROWNFIELD CLEANUP PROGRAM
PREPARED FOR
25 NORTH LEXINGTON AVENUE
GATEWAY II – HOPE FIRE ENGINE CO. SITE No.: C360219
P/O TAX ID: 125.66-5-2.1
BCP SITE AREA: 63,740 S.F. (1.4632 Ac.)
PROPERTY SITUATE IN THE
CITY OF WHITE PLAINS
COUNTY OF WESTCHESTER
STATE OF NEW YORK

0 20 40 Feet
0 5 10 Meters

DATE: AUGUST 19, 2022

LINE & GRADE SURVEYORS D.P.C.
23 Nepperhan Avenue
Elmsford, New York 10523
Phone: (914) 347-3141
email: office@lineandgrade.net

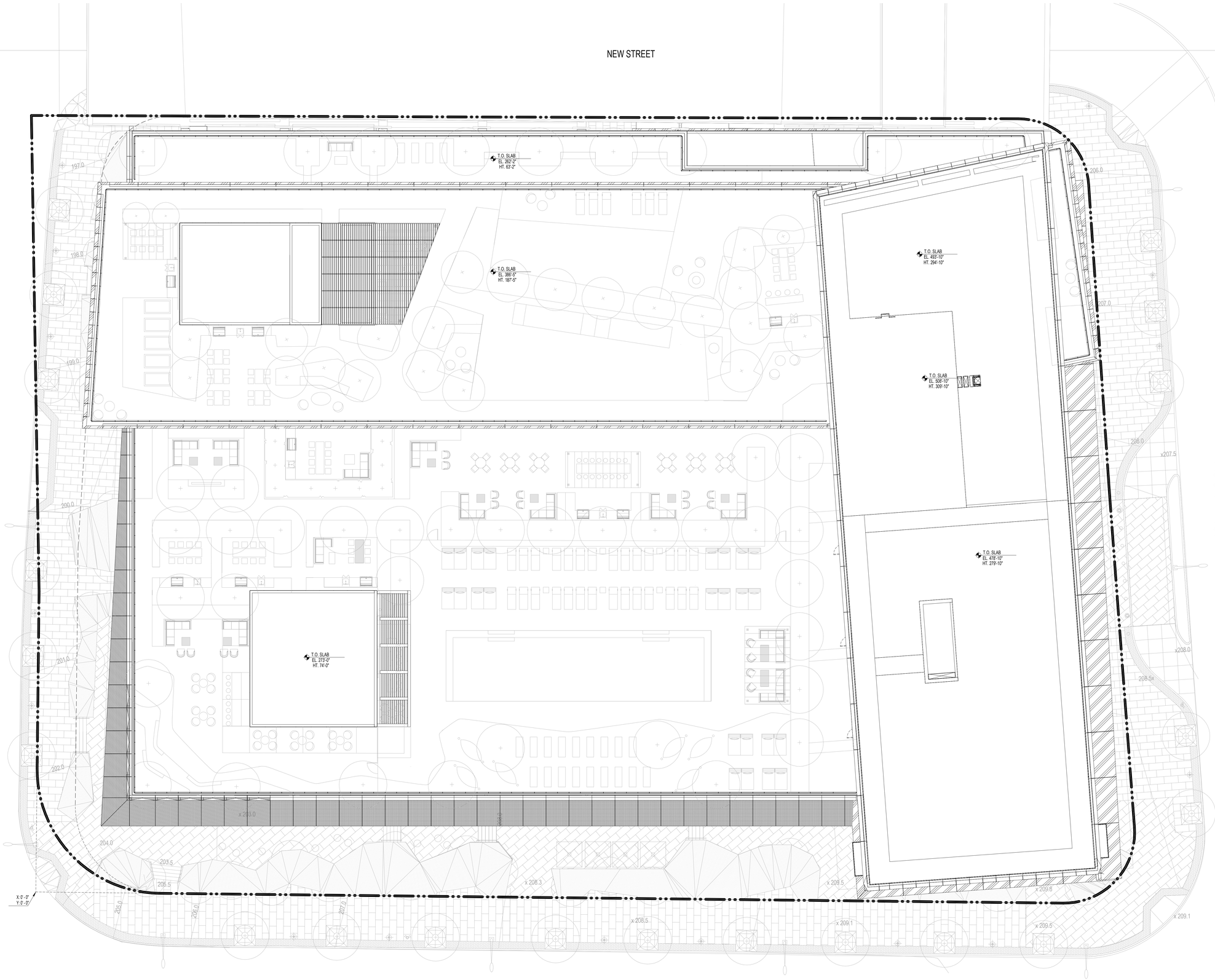
STATE OF NEW YORK
STEVEN J. WILLARD
050054
LICENSED LAND SURVEYOR

N:/C30/21-3791 LRC GATEWAY II_85 North Lexington Ave/dwg/21-3791-Gateway II_BROWNFIELD.dwg

Appendix B:

Proposed Redevelopment Plan

Architectural Drawing



1 SITE PLAN
3/32" = 1'-0"

6/18/2021 4:26:14 PM

GATEWAY II

85 N LEXINGTON AVENUE
WHITE PLAINS, NY 10601

OWNER

GREYSTAR DEVELOPMENT EAST, LLC
One Federal Street, Suite 1804
Boston, MA 02110
T 857-254-1325

ARCHITECT

HANDEL ARCHITECTS, LLP
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MEP ENGINEER

COSENTINI ASSOCIATES
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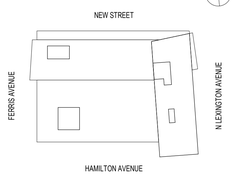
ELEVATOR CONSULTANT

FORTUNE SHEPLER SALING INC.
8752 Forrest Drive
Highlands Ranch, CO
T: 862.400.6382

NO.	DATE	REVISION
	03/26/2021	PRELIMINARY FACADE PACKAGE
	06/04/2021	DESIGN DEVELOPMENT
	06/18/2021	FOUNDATION BID SET

***NOTE: REFERENCE ONLY**

KEY PLAN



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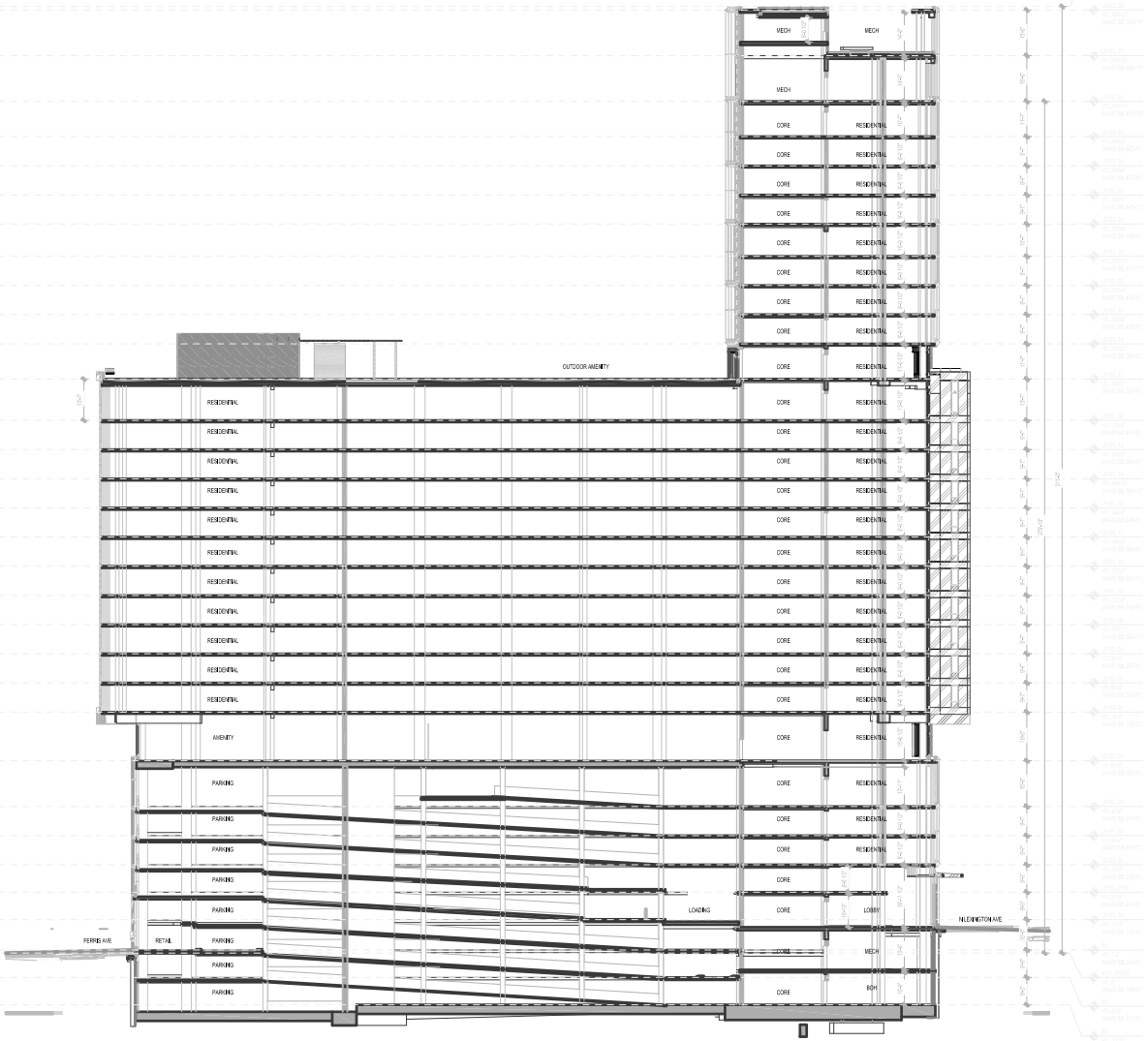
PROJECT NO: 1528
SEAL & SIGNATURE

DRAWING TITLE.:
SITE PLAN

DRAWING NO:
A-100.00

DOB NO:



1 SECTION EAST-WEST 1
1/16" = 1'-0"

25 N LEX

25 NORTH LEXINGTON AVENUE
WHITE PLAINS, NY 10601

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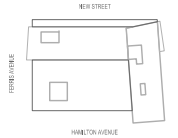
GEOTECHNICAL CONSULTANT
JZN ENGINEERING
99 Morris Avenue Suite 302
Springfield, NJ 07081
T 973-218-5581

NO.	DATE	REVISION
	12/18/2020	ISSUE FOR 50% SD PRICING
	03/26/2021	PRELIMINARY FACADE PACKAGE
	06/04/2021	DESIGN DEVELOPMENT
	08/30/2021	50% CD PROGRESS SET
	10/01/2021	75% CD GMP SET
2	11/17/2021	ISSUED FOR CONSTRUCTION
	12/03/2021	FULL BUILDING FILING SET

KEY PLAN



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PROJECT NO: 1528
SEAL & SIGNATURE

DRAWING TITLE:
SECTION E-W_1

DRAWING NO:
A-301

DOB NO:

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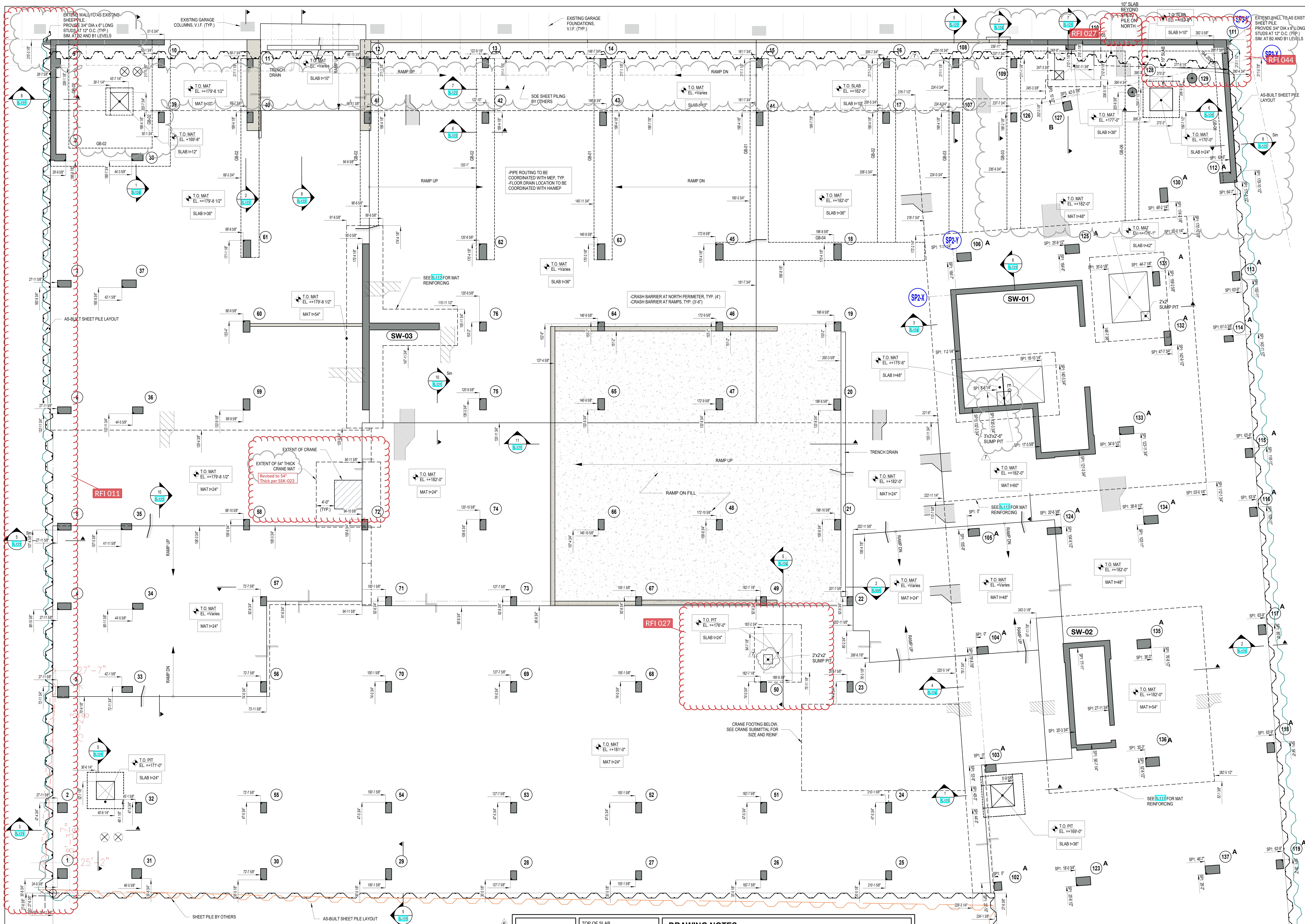

B3 PARKING / FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

TOP OF SLAB ELEVATION U.O.N.:	SEE PLAN
SLAB THICKNESS U.O.N.:	SEE PLAN
SLAB CONCRETE STRENGTH:	f'c = 6,000 psi

DRAWING NOTES:

1. FOR GENERAL NOTES SEE DRAWING S-001
2. TOP OF SLAB ELEVATIONS NOTED "EL:" ON THE PLANS ARE NAVD88 ELEVATIONS.
3. FOUNDATION SHALL BE SUPPORTED ON SOIL WITH MINIMUM BEARING CAPACITY OF 4 TSF.
4. SEE S-112 FOR SHEAR WALL MAT REINFORCING. CONCRETE STRENGTH FOR SW MAT f'c = 8,000PSI
5. FOR TYPICAL FOUNDATION DETAILS SEE DRAWING S-120 SERIES.
6. FOUNDATION BOTTOM MAY NEED TO BE LOWERED DUE TO UNCOVERED SOIL CONDITIONS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION. EXISTING FOOTINGS AND COLUMNS OF THE GARAGE BUILDING ON THE NORTH OF THE PROJECT TO BE VERIFIED IN FIELD.
7. LB DENOTES CONCRETE LINK BEAM. SEE SCHEDULE ON S-400 SERIES DRAWING.
8. E.G. DENOTES HSS6x4x3/8 ELEVATOR GUIDE RAIL SUPPORT BEAM.
9. SW DENOTES SHEAR WALLS. SEE S-400 SERIES FOR DIMENSIONS AND REINFORCEMENTS
10. PROVIDE DCI CORROSION INHIBITOR AT ALL PARKING AREAS.

6/1/2022 6:44:07 PM

25 N LEX

25 NORTH LEXINGTON AVENUE
WHITE PLAINS, NY 10601

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GS WHITE PLAINS OWNER, LLC
One Federal Street, Suite 1804
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ELEVATOR CONSULTANT
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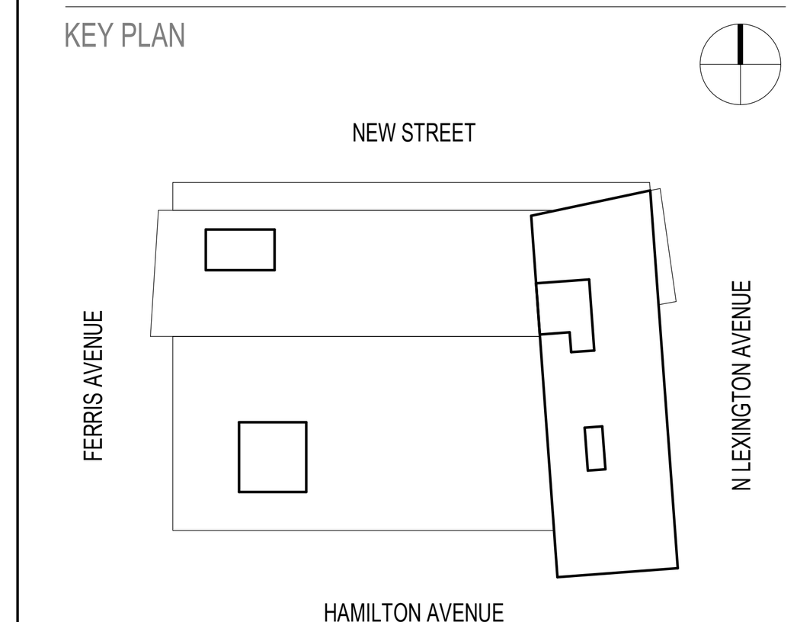
GEOTECHNICAL CONSULTANT
JZN ENGINEERING
99 Morris Avenue Suite 302
Springfield, NJ 07081
T: 973.218.6561

NO.	DATE	REVISION
	06/04/2021	DESIGN DEVELOPMENT
	06/18/2021	FOUNDATION BID
	08/30/2021	50% CD PROGRESS SET
	10/01/2021	75% CDs GMP SET
1	10/29/2021	FOUNDATION BID ADDENDUM 1
2	11/17/2021	ISSUED FOR CONSTRUCTION
5	01/26/2022	RFI 006 RESPONSE
6	03/08/2022	BULLETIN 2
7	05/27/2022	BULLETIN 3

KEY PLAN



SCALE 1/8" = 1'-0"
PROJECT NO: 200771.00
SEAL & SIGNATURE

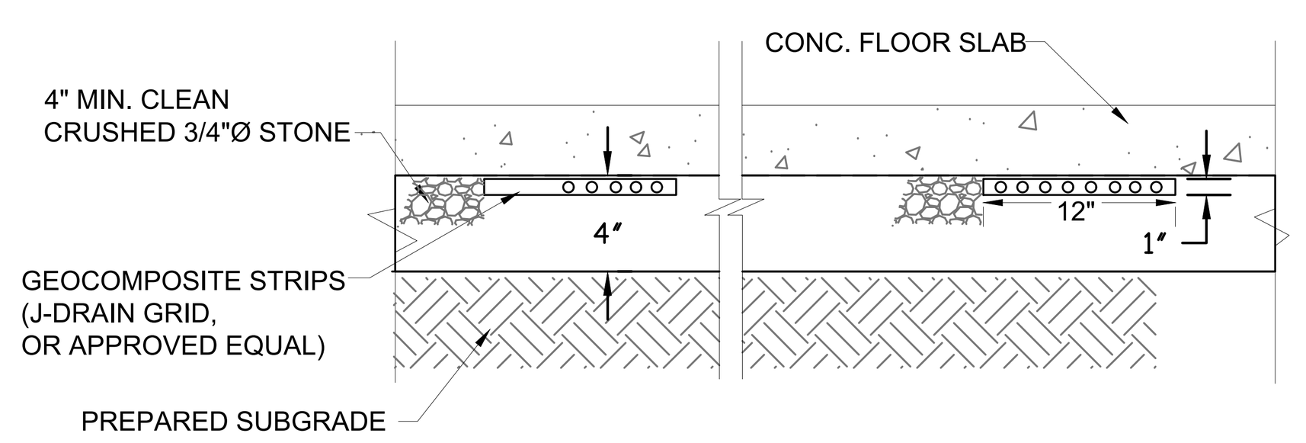
DRAWING TITLE:
B3 PARKING / FOUNDATION PLAN

DRAWING NO:
S-101

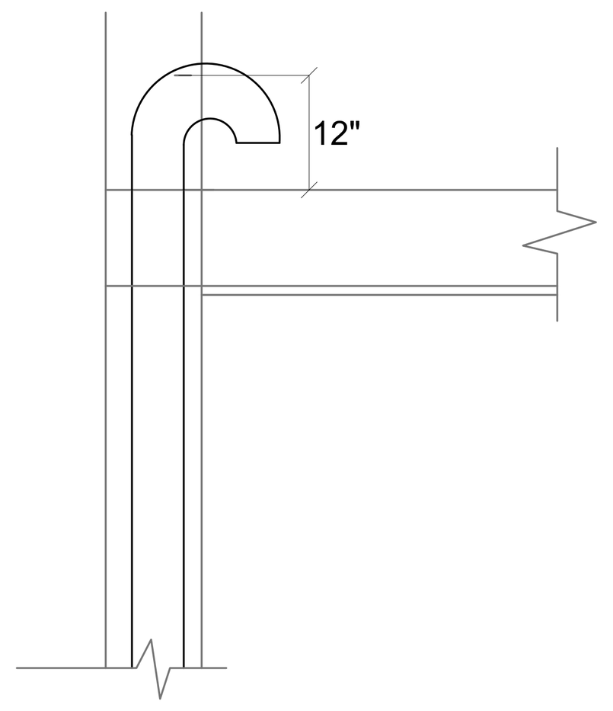
DOB NO:

Appendix C:

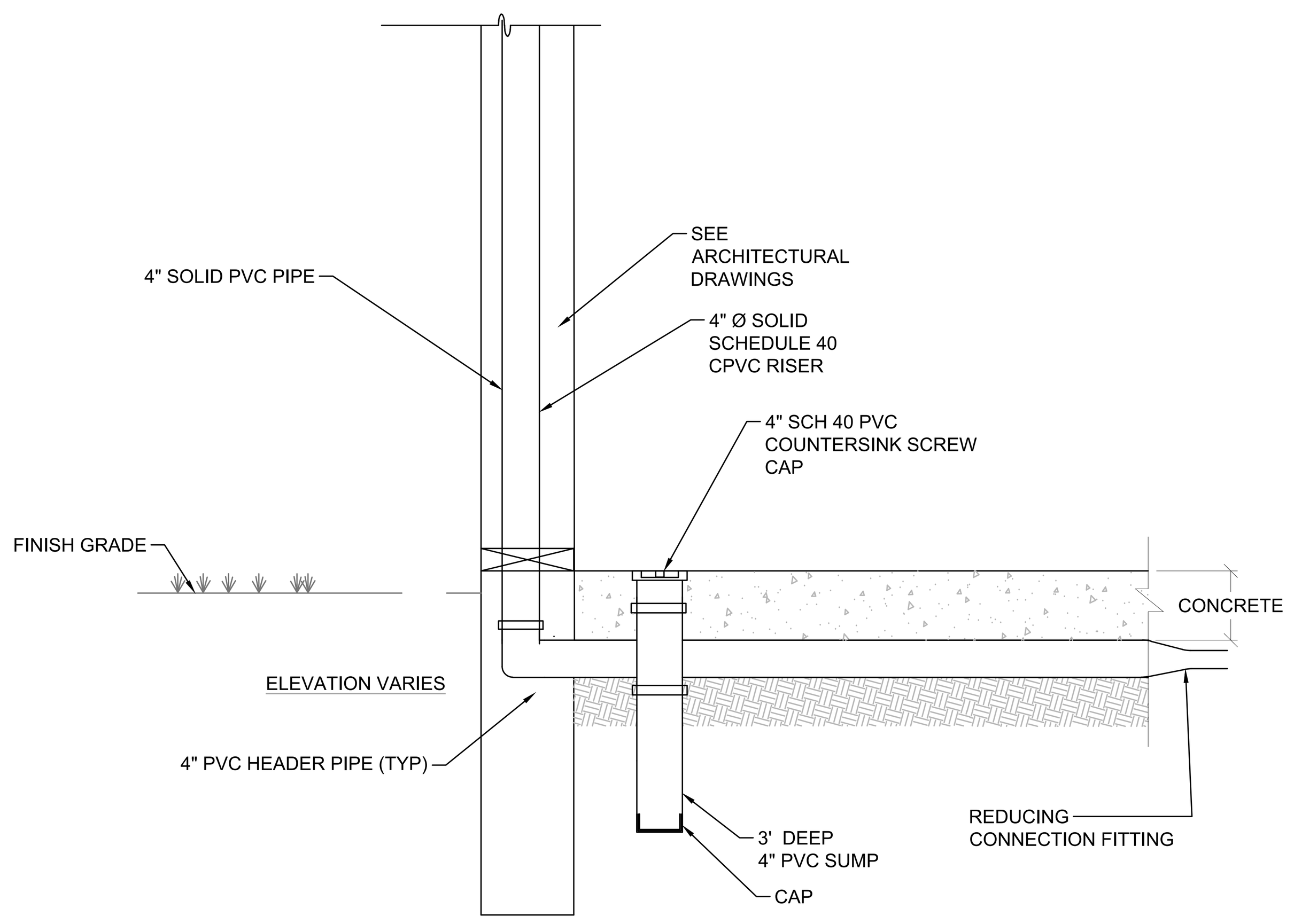
Sub-Slab Depressurization System Drawing



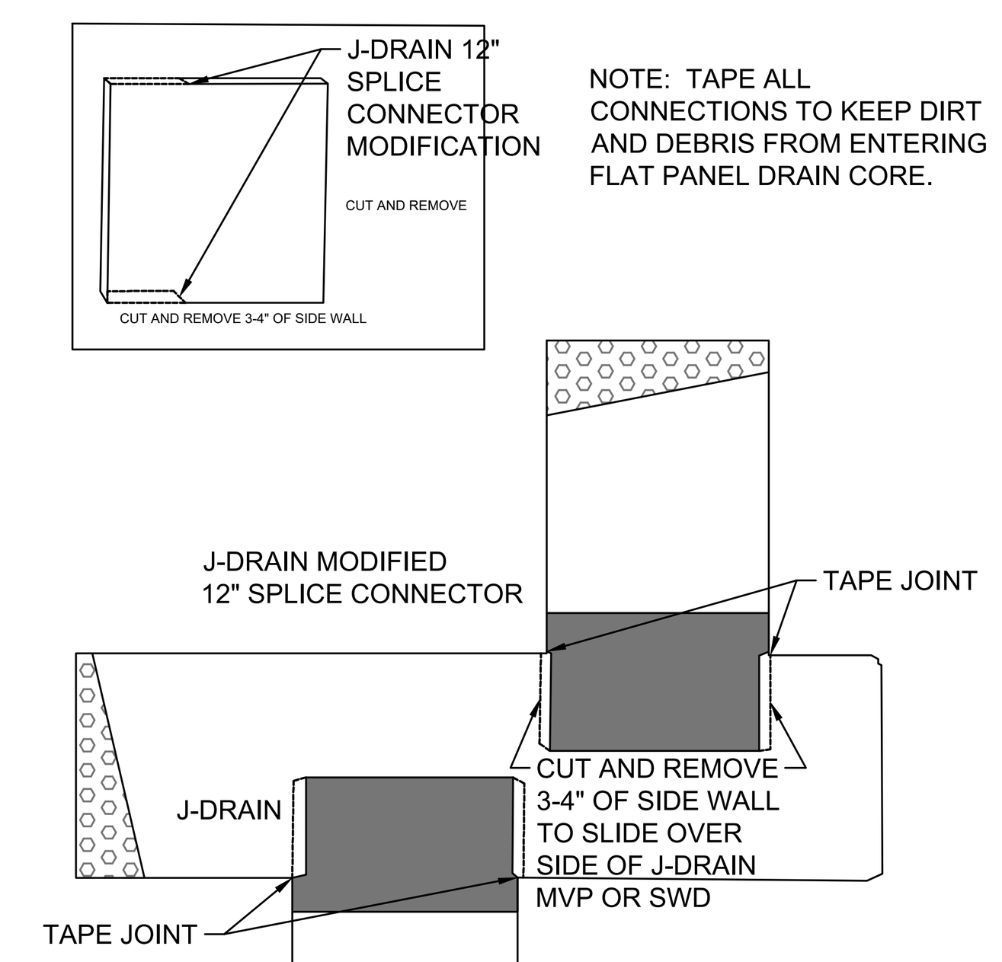
1 D-1 TYPICAL VENTING PIPE DETAIL
NTS



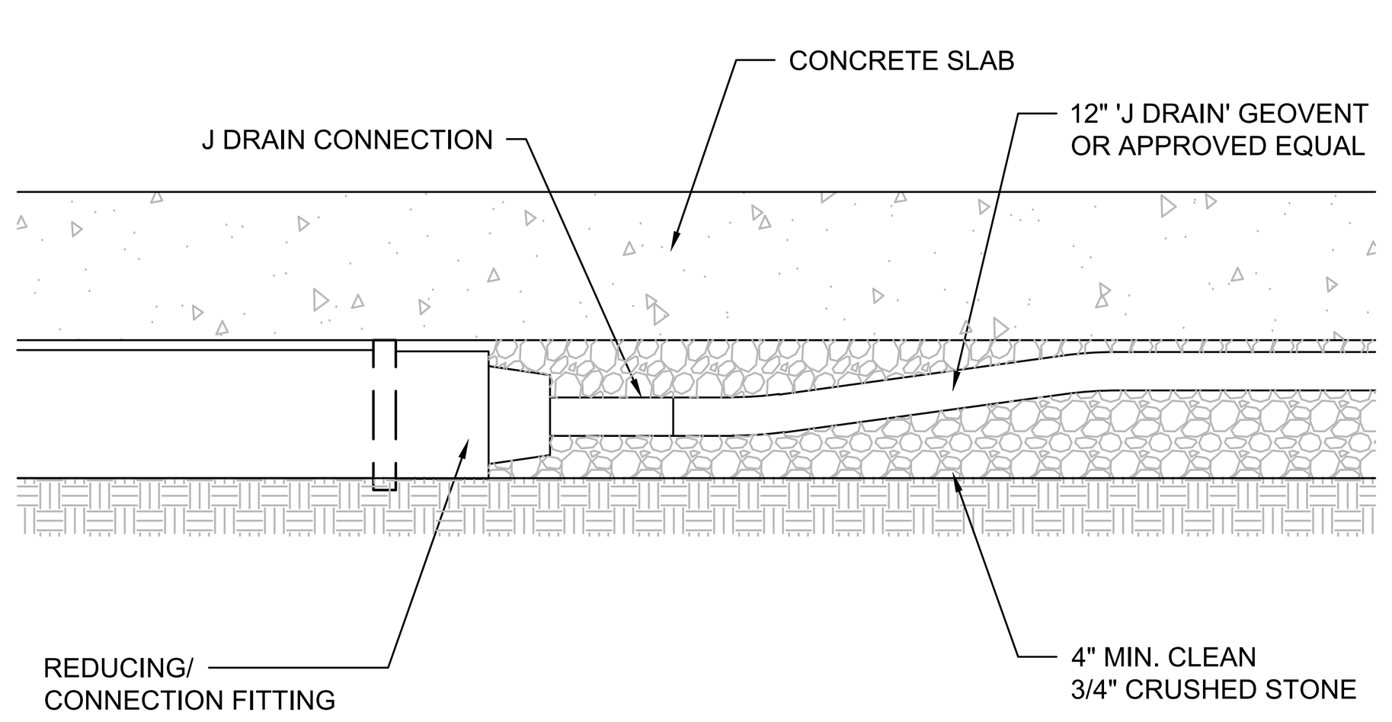
2 D-1 VENT RISER TERMINATION ON ROOF (R2 AND R3)
NTS



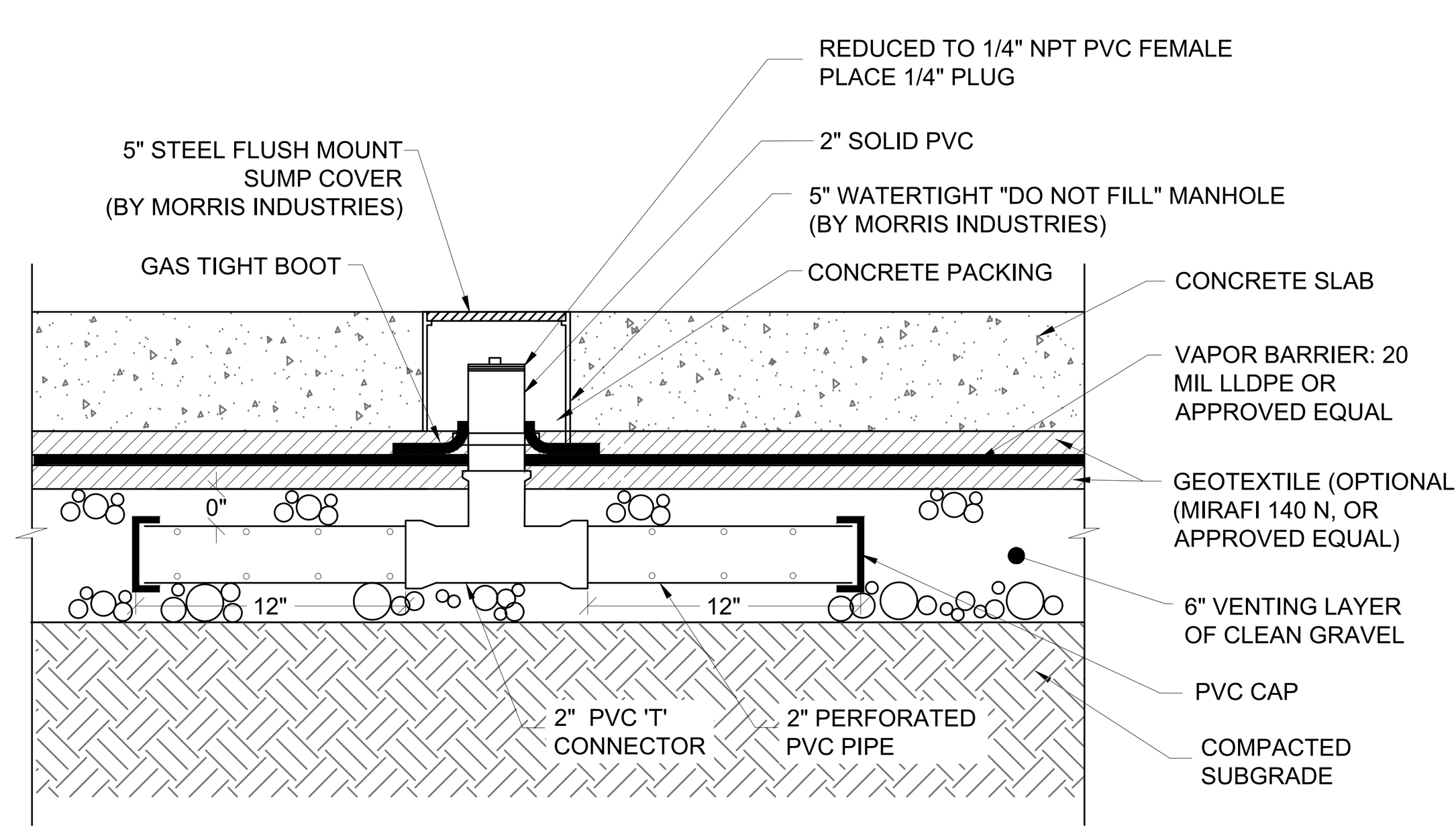
3 D-1 SECTION B-B - TYPICAL SECTION: SUBSLAB RISERS WITH CLEAN OUT
SCALE: N.T.S.



4 D-1 3 AND 4 WAY J DRAIN CONNECTION
SCALE: N.T.S.



5 D-1 ENLARGED SOLID PIPE AND J DRAIN CONNECTION
SCALE: N.T.S.



6 D-1 TYPICAL SUB-SLAB SAMPLING PORT
NTS

GENERAL NOTES:

1. THE PLANNED SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) WILL BE PLACED BENEATH THE CONCRETE SLAB IN THE ENCLOSED AREAS. THE SSDS INCLUDES THE FOLLOWING ELEMENTS:
   a) GRAVEL VENTING LAYER - A MINIMUM, 4-INCH THICK , CLEAN (I.E. NO SILT AND/OR CLAY "FINES"), CRUSHED STONE VENTING LAYER (I.E. 3/4 - INCH CRUSHED STONE) WILL BE PLACED BELOW THE SLAB AND LINER.
   b) SUB-SLAB COLLECTION PIPING - A NETWORK OF VENTING PIPES (J-DRAIN OR HDPE PIPE) WILL BE PLACED WITHIN THE GRAVEL VENTING LAYER. THE VENTING PIPES WILL BE MANIFOLDED AS SHOWN IN THE DRAWING.
   c) RISERS - CONVEYANCE RISER PIPES WILL BE INSTALLED FROM THE SUB-SLAB HEADER PIPES TO BUILDING ROOF AS SHOWN IN THE DRAWING.
2. ALL CONDUITS AND/OR PIPE PENETRATIONS INTO THE SLAB SHOULD BE SEALED PROPERLY.
3. OPERATION OF THE VI MITIGATION SYSTEM IS DESIGNED TO BE PASSIVE. THERE ARE NO MOVING OR MECHANICAL PARTS. ALL VENT RISERS SHALL BE FREE OF OBSTRUCTIONS AND VENT VALVES SHALL BE SET IN A FULLY OPEN POSITION. IF NECESSARY, ADJUSTMENT OF THE VENT VALVES SHALL BE PERFORMED BY A COMPETENT AND RESPONSIBLE AGENT TO ENSURE ADEQUATE VENTING OF THE SUB-SLAB SPACE.
4. ALL SUB-SLAB COLLECTION LATERALS AND VERTICAL VENT RISERS SHALL BE FREE OF OBSTRUCTIONS, NOT INUNDATED WITH WATER, AND ABLE TO VENT AIR FREELY FROM BELOW THE BUILDING SLAB TO THE ATMOSPHERE.
5. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF VI MITIGATION SYSTEM WITH OTHER TRADES.
6. ARCHITECTURAL AND ENGINEERING CONSTRUCTION DOCUMENTS SHALL BE COORDINATED WITH THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL NOT DEVIATE FROM THESE DOCUMENTS WITHOUT APPROVAL FROM THE RESPECTIVE DESIGN PROFESSIONALS.

rev	date	description	by

drawn by: aas
checked by: JP
scale: AS NOTED
date: 08/24/2022

SESI CONSULTING ENGINEERS
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH. 973-808-9050

FUAD DAHAN, P.E.
PROFESSIONAL ENGINEER
N.Y. LIC. NO. 90531

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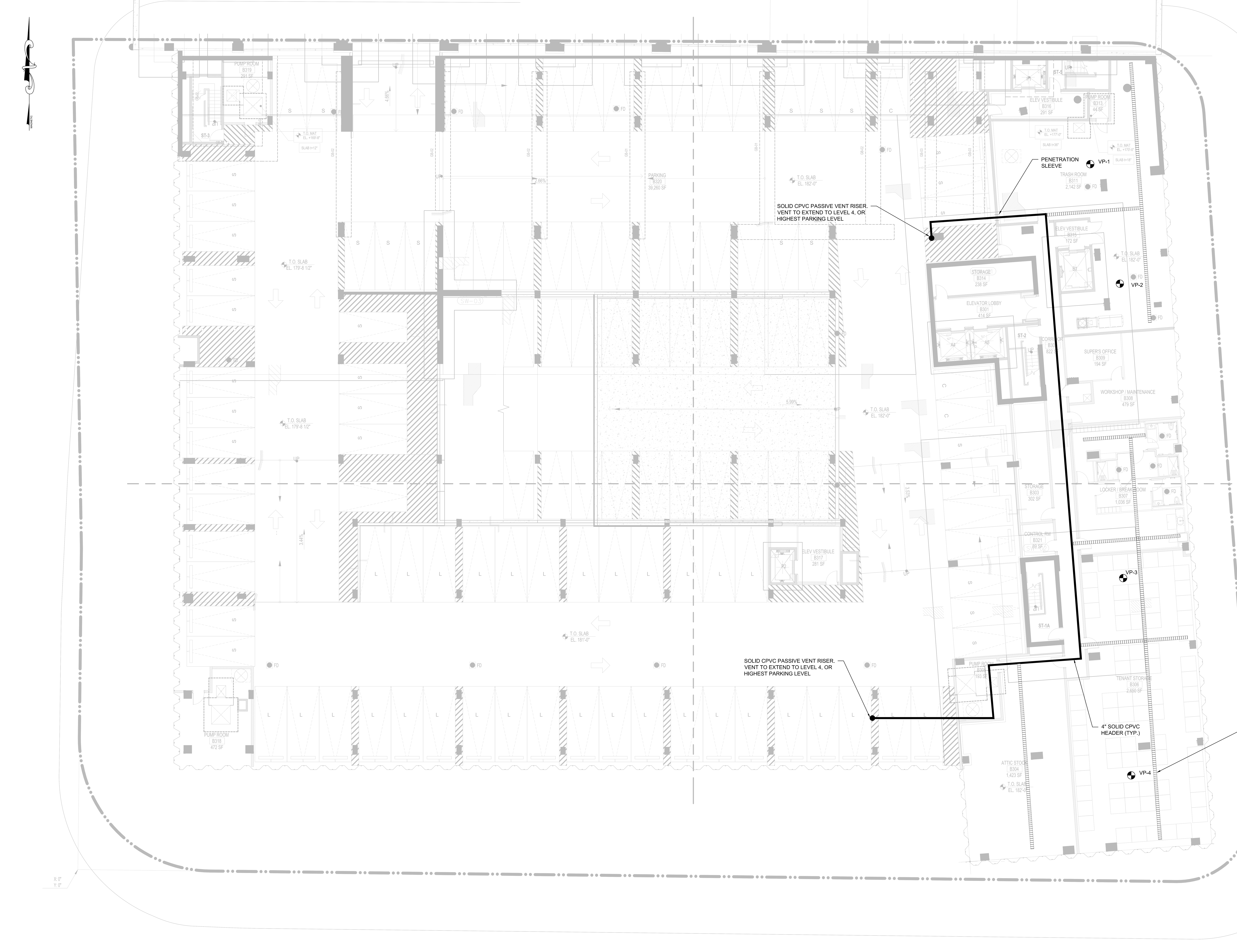
25 NORTH LEXINGTON AVENUE
WHITE PLAINS, NEW YORK 10601

title: VAPOR INTRUSION DETAILS

job no. 11814
drawing no.

D-1



LEGEND:

- 12" 'J' DRAIN GEOVENT
- 4" SOLID CPVC HEADER
- 4" SOLID CPVC PASSIVE VENT RISER (2)
- VP-1 VAPOR SAMPLE LOCATION

Scale: 1"= 10'

REFERENCE:
BUILDING INFORMATION TAKEN FROM "LEVEL B3 FLOOR PLAN PLAN" PREPARED BY HANDEL ARCHITECTS, LLP DATED NOVEMBER 17, 2021.

SESI CONSULTING ENGINEERS
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12A MAPLE AVE, PINE BROOK, N.J. 07058 PH: 973-808-9050

drawn by: aas
checked by: JP
scale: AS NOTED
date: 08/24/2022

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title: VAPOR INTRUSION PLAN

job no. 11814
drawing no. V-1

Appendix D:

NYSDEC Soil Cleanup Objectives

375-6.8 Soil cleanup objective tables.

(a) Unrestricted use soil cleanup objectives.

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
Metals		
Arsenic	7440-38-2	13 [c]
Barium	7440-39-3	350 [c]
Beryllium	7440-41-7	7.2
Cadmium	7440-43-9	2.5 [c]
Chromium, hexavalent [e]	18540-29-9	1[b]
Chromium, trivalent [e]	16065-83-1	30 [c]
Copper	7440-50-8	50
Total Cyanide [e, f]		27
Lead	7439-92-1	63 [c]
Manganese	7439-96-5	1600 [c]
Total Mercury		0.18 [c]
Nickel	7440-02-0	30
Selenium	7782-49-2	3.9[c]
Silver	7440-22-4	2
Zinc	7440-66-6	109 [c]
PCBs/Pesticides		
2,4,5-TP Acid (Silvex) [f]	93-72-1	3.8
4,4'-DDE	72-55-9	0.0033 [b]
4,4'-DDT	50-29-3	0.0033 [b]
4,4'-DDD	72-54-8	0.0033 [b]
Aldrin	309-00-2	0.005 [c]
alpha-BHC	319-84-6	0.02
beta-BHC	319-85-7	0.036
Chlordane (alpha)	5103-71-9	0.094

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
delta-BHC [g]	319-86-8	0.04
Dibenzofuran [f]	132-64-9	7
Dieldrin	60-57-1	0.005 [c]
Endosulfan I [d, f]	959-98-8	2.4
Endosulfan II [d, f]	33213-65-9	2.4
Endosulfan sulfate [d, f]	1031-07-8	2.4
Endrin	72-20-8	0.014
Heptachlor	76-44-8	0.042
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	0.1
Semivolatile organic compounds		
Acenaphthene	83-32-9	20
Acenapthylene [f]	208-96-8	100 [a]
Anthracene [f]	120-12-7	100 [a]
Benz(a)anthracene [f]	56-55-3	1 [c]
Benzo(a)pyrene	50-32-8	1 [c]
Benzo(b)fluoranthene [f]	205-99-2	1 [c]
Benzo(g,h,i)perylene [f]	191-24-2	100
Benzo(k)fluoranthene [f]	207-08-9	0.8 [c]
Chrysene [f]	218-01-9	1 [c]
Dibenz(a,h)anthracene [f]	53-70-3	0.33 [b]
Fluoranthene [f]	206-44-0	100 [a]
Fluorene	86-73-7	30
Indeno(1,2,3-cd)pyrene [f]	193-39-5	0.5 [c]
m-Cresol [f]	108-39-4	0.33 [b]
Naphthalene [f]	91-20-3	12
o-Cresol [f]	95-48-7	0.33 [b]

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
p-Cresol [f]	106-44-5	0.33 [b]
Pentachlorophenol	87-86-5	0.8 [b]
Phenanthrene [f]	85-01-8	100
Phenol	108-95-2	0.33 [b]
Pyrene [f]	129-00-0	100
Volatile organic compounds		
1,1,1-Trichloroethane [f]	71-55-6	0.68
1,1-Dichloroethane [f]	75-34-3	0.27
1,1-Dichloroethene [f]	75-35-4	0.33
1,2-Dichlorobenzene [f]	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02 [c]
cis -1,2-Dichloroethene [f]	156-59-2	0.25
trans-1,2-Dichloroethene [f]	156-60-5	0.19
1,3-Dichlorobenzene [f]	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1 [b]
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene [f]	104-51-8	12
Carbon tetrachloride [f]	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene [f]	100-41-4	1
Hexachlorobenzene [f]	118-74-1	0.33[b]
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether [f]	1634-04-4	0.93
Methylene chloride	75-09-2	0.05

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
n - Propylbenzene [f]	103-65-1	3.9
sec-Butylbenzene [f]	135-98-8	11
tert-Butylbenzene [f]	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene [f]	95-63-6	3.6
1,3,5-Trimethylbenzene[f]	108-67-8	8.4
Vinyl chloride[f]	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm).

Footnotes

[a] The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

[b] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

[c] For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

[d] SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

[e] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[f] Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with “NS”. Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16[f]	16[f]	16[f]	16[f]	13[f]	16[f]
Barium	7440-39-3	350[f]	400	400	10,000 [d]	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5[f]	4.3	9.3	60	4	7.5
Chromium, hexavalent [h]	18540-29-9	22	110	400	800	1[e]	19
Chromium, trivalent [h]	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 [d]	50	1,720
Total Cyanide [h]		27	27	27	10,000 [d]	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63[f]	450
Manganese	7439-96-5	2,000[f]	2,000[f]	10,000 [d]	10,000 [d]	1600[f]	2,000[f]
Total Mercury		0.81[j]	0.81[j]	2.8[j]	5.7[j]	0.18[f]	0.73
Nickel	7440-02-0	140	310	310	10,000 [d]	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9[f]	4[f]
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 [d]	10,000 [d]	10,000 [d]	109[f]	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100[a]	500[b]	1,000[c]	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 [e]	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 [e]	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 [e]	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04[g]	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100[a]	100[a]	500[b]	1,000[c]	0.04[g]	0.25
Dibenzofuran	132-64-9	14	59	350	1,000[c]	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan II	33213-65-9	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan sulfate	1031-07-8	4.8[i]	24[i]	200[i]	920[i]	NS	1,000[c]
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100[a]	100[a]	500[b]	1,000[c]	20	98
Acenapthylene	208-96-8	100[a]	100[a]	500[b]	1,000[c]	NS	107
Anthracene	120-12-7	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benz(a)anthracene	56-55-3	1[f]	1[f]	5.6	11	NS	1[f]
Benzo(a)pyrene	50-32-8	1[f]	1[f]	1[f]	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1[f]	1[f]	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1[f]	3.9	56	110	NS	1[f]
Dibenz(a,h)anthracene	53-70-3	0.33[e]	0.33[e]	0.56	1.1	NS	1,000[c]
Fluoranthene	206-44-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Fluorene	86-73-7	100[a]	100[a]	500[b]	1,000[c]	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5[f]	0.5[f]	5.6	11	NS	8.2
m-Cresol	108-39-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
Naphthalene	91-20-3	100[a]	100[a]	500[b]	1,000[c]	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
p-Cresol	106-44-5	34	100[a]	500[b]	1,000[c]	NS	0.33[e]
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8[e]	0.8[e]
Phenanthrene	85-01-8	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Phenol	108-95-2	100[a]	100[a]	500[b]	1,000[c]	30	0.33[e]
Pyrene	129-00-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Volatiles							
1,1,1-Trichloroethane	71-55-6	100[a]	100[a]	500[b]	1,000[c]	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33
1,2-Dichlorobenzene	95-50-1	100[a]	100[a]	500[b]	1,000[c]	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02[f]
cis-1,2-Dichloroethene	156-59-2	59	100[a]	500[b]	1,000[c]	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100[a]	100[a]	500[b]	1,000[c]	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1[e]	0.1[e]
Acetone	67-64-1	100[a]	100[b]	500[b]	1,000[c]	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100[a]	100[a]	500[b]	1,000[c]	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100[a]	100[a]	500[b]	1,000[c]	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33[e]	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100[a]	100[a]	500[b]	1,000[c]	100[a]	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100[a]	500[b]	1,000[c]	NS	0.93
Methylene chloride	75-09-2	51	100[a]	500[b]	1,000[c]	12	0.05
n-Propylbenzene	103-65-1	100[a]	100[a]	500[b]	1,000[c]	NS	3.9
sec-Butylbenzene	135-98-8	100[a]	100[a]	500[b]	1,000[c]	NS	11
tert-Butylbenzene	98-06-6	100[a]	100[a]	500[b]	1,000[c]	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100[a]	100[a]	500[b]	1,000[c]	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100[a]	100[a]	500[b]	1,000[c]	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).
NS=Not specified. See Technical Support Document (TSD).

Footnotes

[a] The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

[b] The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

[c] The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

[d] The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

[e] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

[f] For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

[g] This SCO is derived from data on mixed isomers of BHC.

[h] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[i] This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

[j] This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.